



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
JOHN DEERE 310E 1DW310EXHMF708946
Component
Hydraulic System
Fluid
{not provided} (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0205777	JR0178114	JR0150652
Sample Date		Client Info		15 Jun 2024	07 Sep 2023	11 Nov 2022
Machine Age	hrs	Client Info		4517	3608	2590
Oil Age	hrs	Client Info		4517	3608	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Chngd	Not Chngd	Not Chngd
Filter Changed		Client Info		Not Chngd	Not Chngd	Not Chngd
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

PQ		ASTM D8184	>50	18	11	7
Iron	ppm	ASTM D5185m	>71	5	9	7
Chromium	ppm	ASTM D5185m	>11	<1	1	<1
Nickel	ppm	ASTM D5185m	>6	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	2
Aluminum	ppm	ASTM D5185m	>11	2	<1	2
Lead	ppm	ASTM D5185m	>13	0	0	0
Copper	ppm	ASTM D5185m	>21	2	4	2
Tin	ppm	ASTM D5185m	>5	0	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

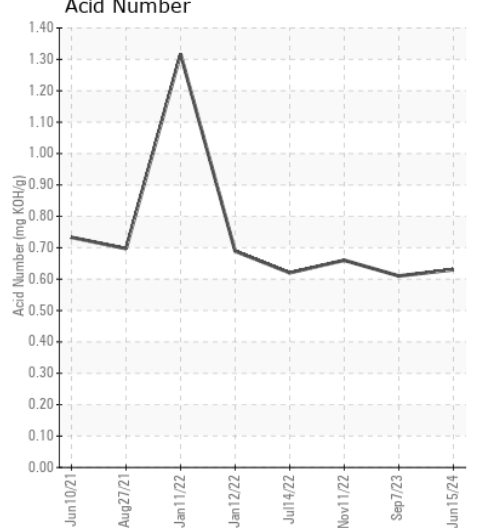
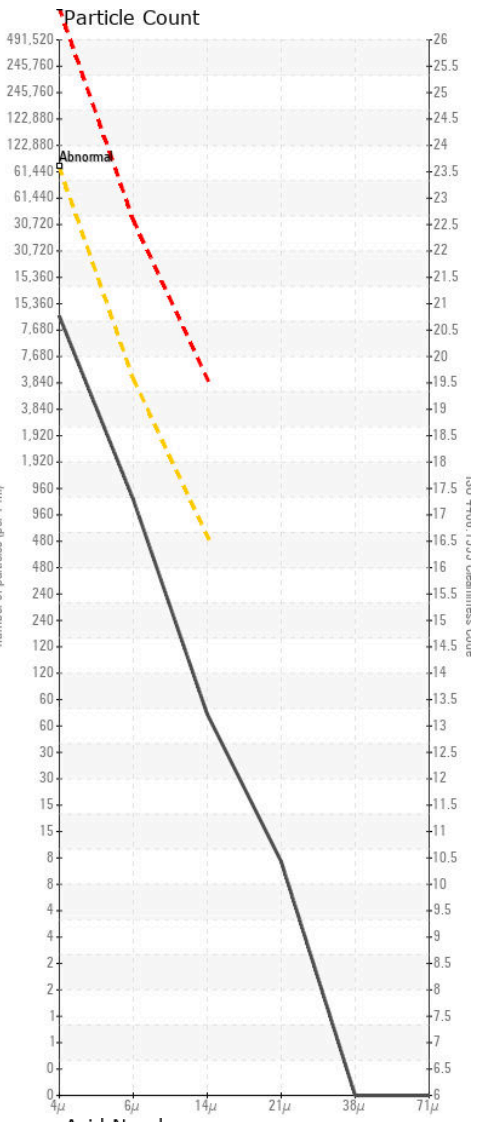
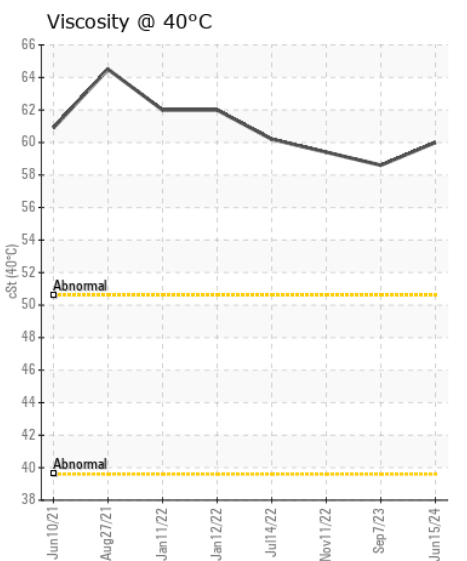
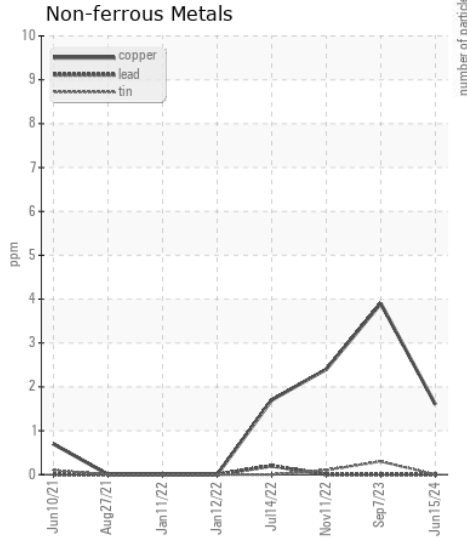
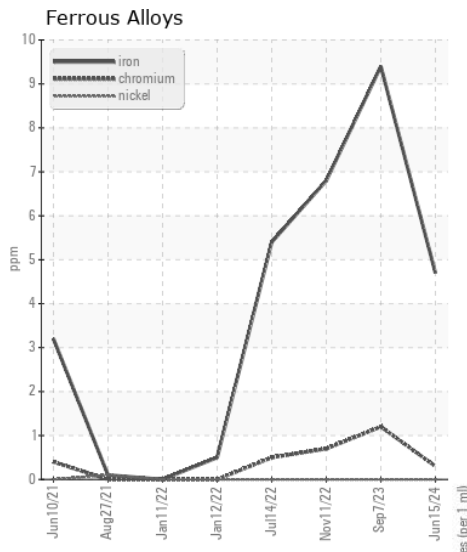
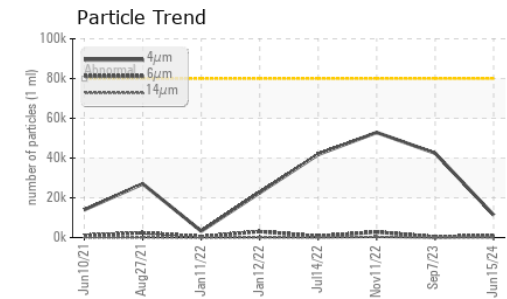
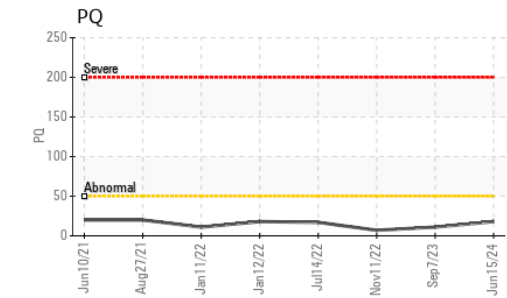
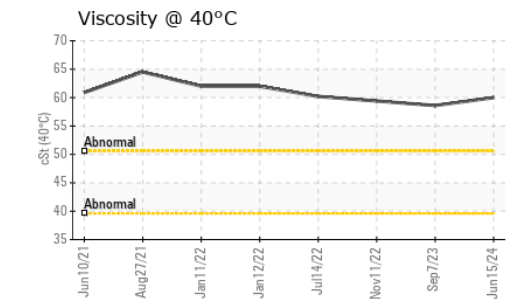
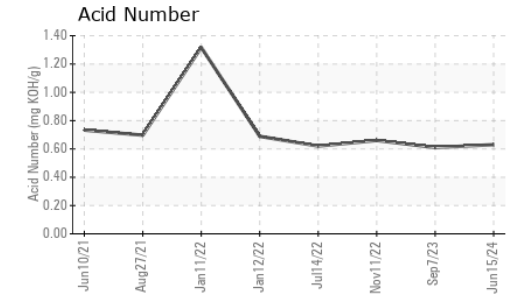
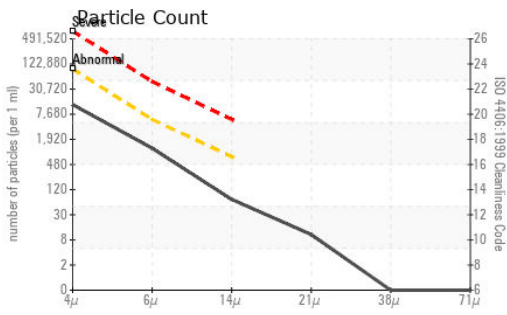
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Silicon	ppm	ASTM D5185m	>24	2	4	2
Potassium	ppm	ASTM D5185m	>20	2	2	2
Water		WC Method	>0.075	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>80000	11355	42440	52876
Particles >6µm		ASTM D7647	>5000	1030	296	2818
Particles >14µm		ASTM D7647	>640	62	7	305
Particles >21µm		ASTM D7647	>160	9	2	73
Particles >38µm		ASTM D7647	>40	0	1	6
Particles >71µm		ASTM D7647	>10	0	0	1
Oil Cleanliness		ISO 4406 (c)	>23/19/16	21/17/13	23/15/10	23/19/15
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.075	NEG	NEG	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	0	3	0
Boron	ppm	ASTM D5185m		2	0	<1
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		<1	0	0
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m		4	4	2
Calcium	ppm	ASTM D5185m		96	96	92
Phosphorus	ppm	ASTM D5185m		645	633	602
Zinc	ppm	ASTM D5185m		843	815	815
Sulfur	ppm	ASTM D5185m		1557	1813	1911
Acid Number (AN)	mg KOH/g	ASTM D8045		0.63	0.61	0.66
Visc @ 40°C	cSt	ASTM D445		60.0	58.6	59.4



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0205777 **Received** : 19 Jun 2024
Lab Number : 06214552 **Tested** : 20 Jun 2024
Unique Number : 11087416 **Diagnosed** : 20 Jun 2024 - Wes Davis
Test Package : CONST (Additional Tests: PQ)

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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)