



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
JOHN DEERE 310E 1DW310EXELF705139
 Component
Hydraulic System
 Fluid
JOHN DEERE HYDRAU (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0219772	JR0203436	JR0170703
Sample Date		Client Info		20 Jun 2024	14 Feb 2024	25 Aug 2023
Machine Age	hrs	Client Info		4542	3930	3538
Oil Age	hrs	Client Info		612	2849	3001
Filter Age	hrs	Client Info		0	2849	0
Oil Changed		Client Info		Not Chngd	Changed	Not Chngd
Filter Changed		Client Info		Not Chngd	Changed	Not Chngd
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
PQ		ASTM D8184	>50	15	10	15
Iron	ppm	ASTM D5185m	>71	0	16	14
Chromium	ppm	ASTM D5185m	>11	1	5	4
Nickel	ppm	ASTM D5185m	>6	0	0	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>11	3	8	5
Lead	ppm	ASTM D5185m	>13	0	<1	0
Copper	ppm	ASTM D5185m	>21	<1	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

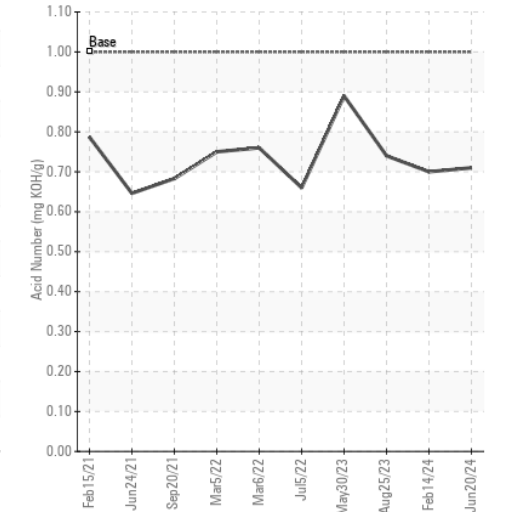
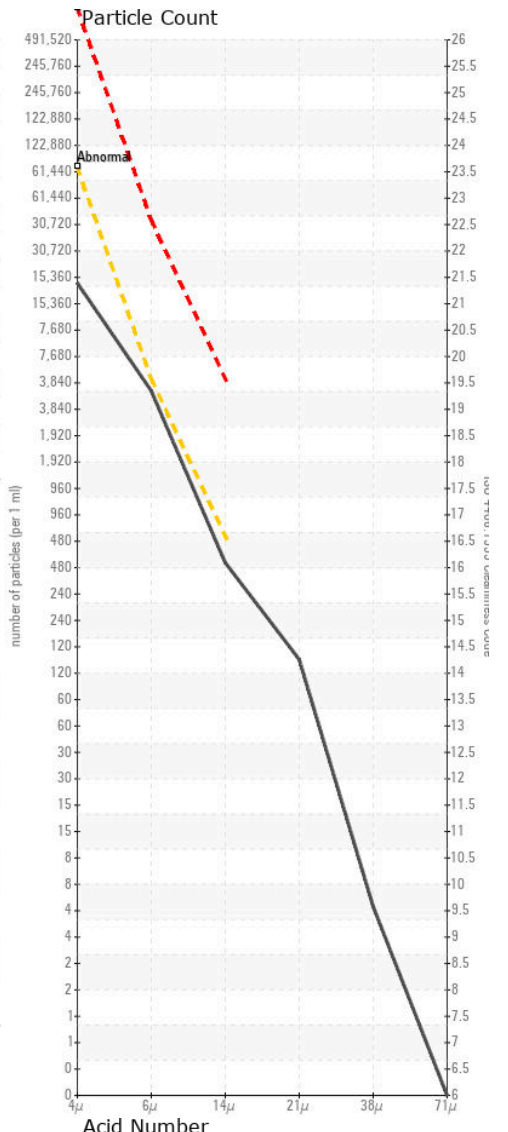
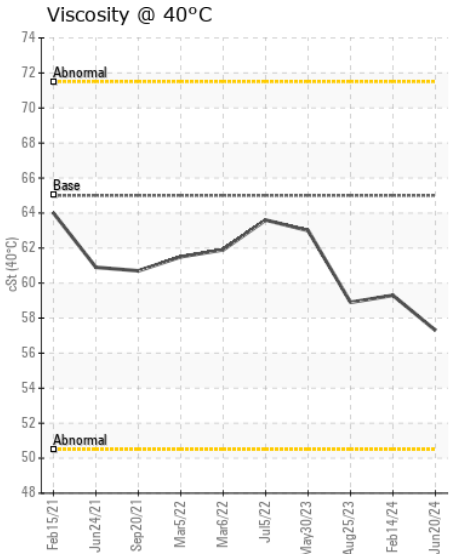
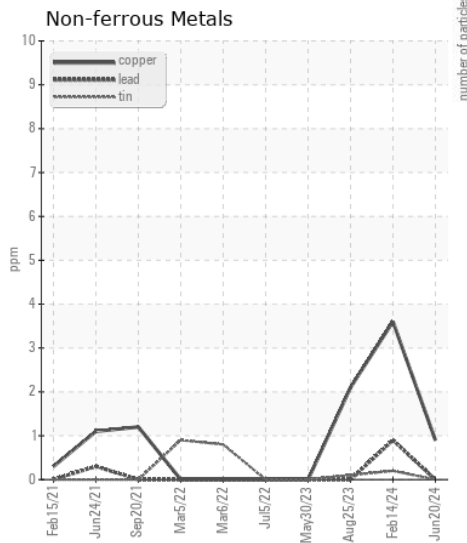
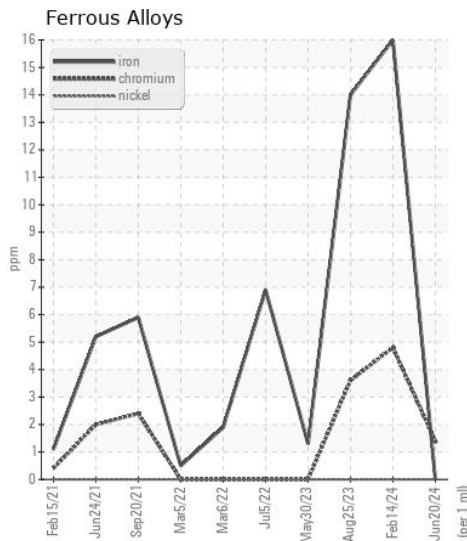
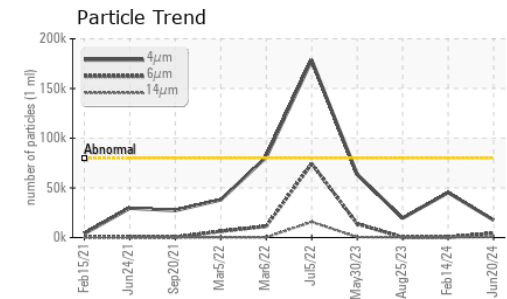
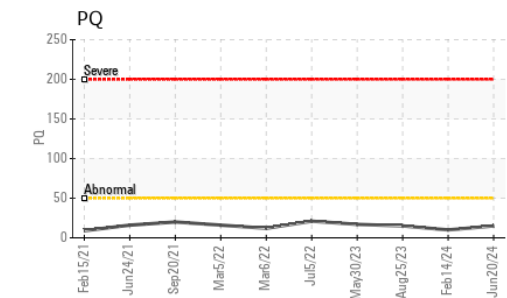
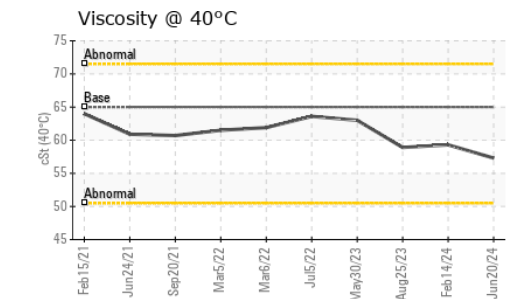
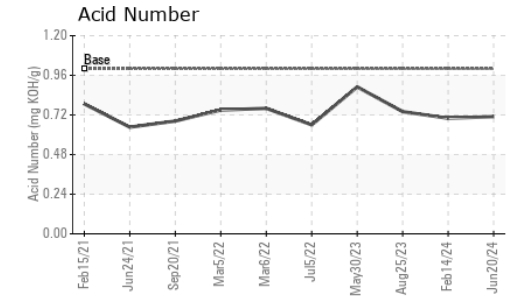
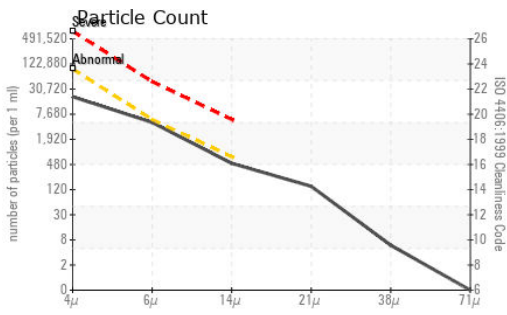
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Silicon	ppm	ASTM D5185m	>24	4	11	8
Potassium	ppm	ASTM D5185m	>20	<1	2	<1
Water		WC Method	>0.075	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>80000	17501	45174	19550
Particles >6µm		ASTM D7647	>5000	4263	419	263
Particles >14µm		ASTM D7647	>640	450	30	36
Particles >21µm		ASTM D7647	>160	127	5	9
Particles >38µm		ASTM D7647	>40	5	0	0
Particles >71µm		ASTM D7647	>10	0	0	0
Oil Cleanliness		ISO 4406 (c)	>23/19/16	21/19/16	23/16/12	21/15/12
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	LIGHT	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	3	3	2
Boron	ppm	ASTM D5185m		2	<1	0
Barium	ppm	ASTM D5185m		0	<1	0
Molybdenum	ppm	ASTM D5185m		0	<1	<1
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m		1	5	3
Calcium	ppm	ASTM D5185m	87	184	109	107
Phosphorus	ppm	ASTM D5185m	727	662	573	571
Zinc	ppm	ASTM D5185m	900	831	830	808
Sulfur	ppm	ASTM D5185m	1500	1923	1552	1780
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	0.71	0.70	0.74
Visc @ 40°C	cSt	ASTM D445	65	57.3	59.3	58.9



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0219772 **Received** : 25 Jun 2024
Lab Number : 06219600 **Tested** : 26 Jun 2024
Unique Number : 11097797 **Diagnosed** : 26 Jun 2024 - Wes Davis
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)