



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
JOHN DEERE 310SJ 1T0310SJHBD209337

Component
Hydraulic System

Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (10 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0218910	JR0185059	JR0176899
Sample Date		Client Info		24 Jun 2024	22 Jan 2024	11 Jul 2023
Machine Age	hrs	Client Info		6957	6732	6370
Oil Age	hrs	Client Info		839	363	252
Filter Age	hrs	Client Info		839	363	252
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

PQ		ASTM D8184	>50	20	16	16
Iron	ppm	ASTM D5185m	>71	6	7	11
Chromium	ppm	ASTM D5185m	>11	<1	<1	<1
Nickel	ppm	ASTM D5185m	>6	0	0	0
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>11	3	5	7
Lead	ppm	ASTM D5185m	>13	0	1	<1
Copper	ppm	ASTM D5185m	>21	19	21	28
Tin	ppm	ASTM D5185m	>5	0	<1	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

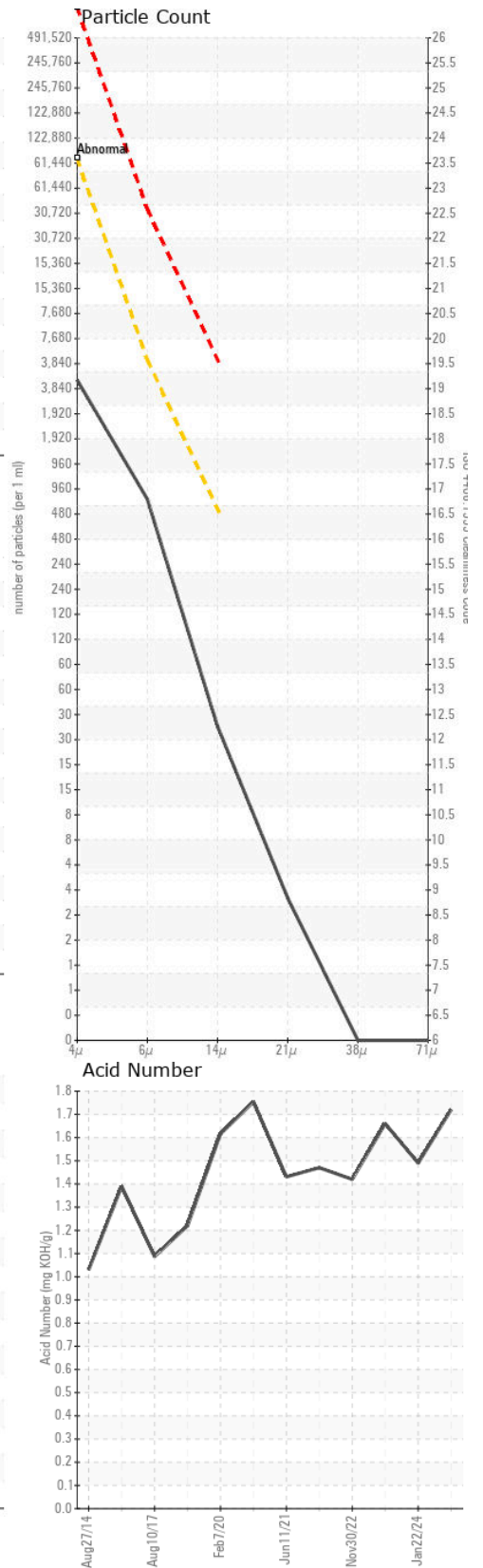
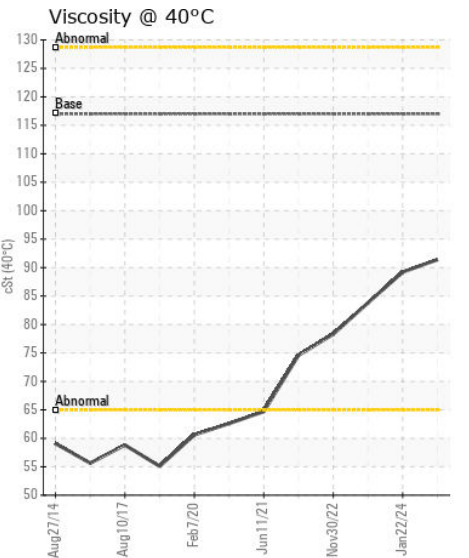
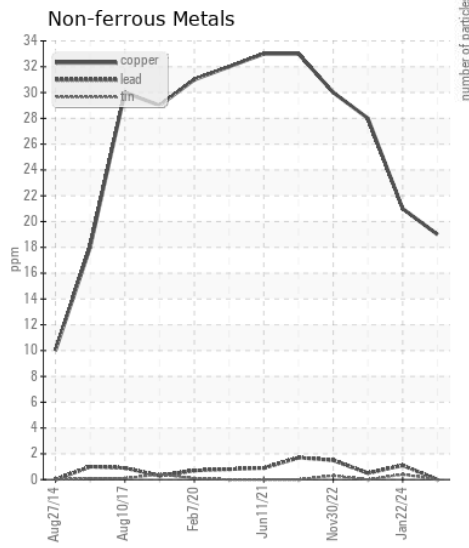
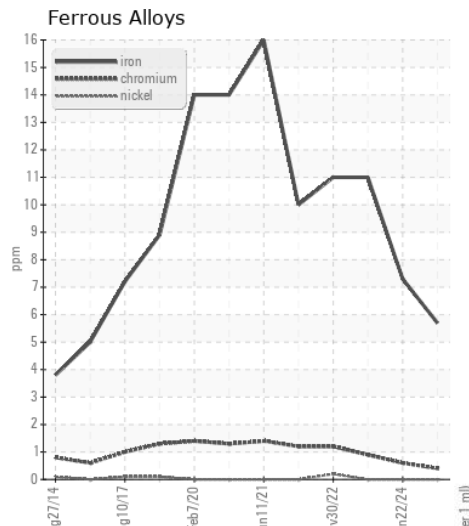
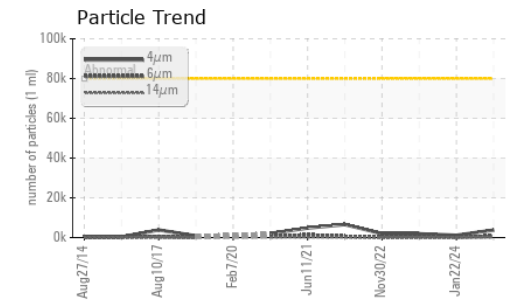
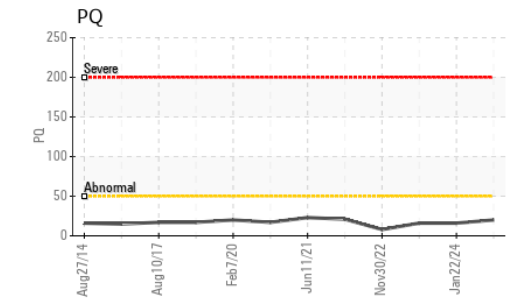
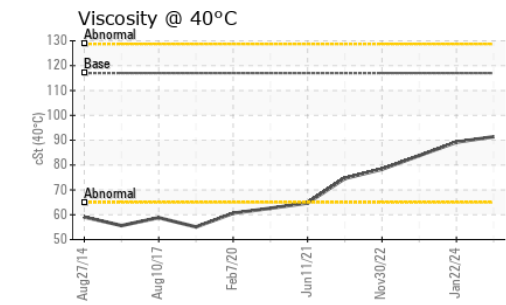
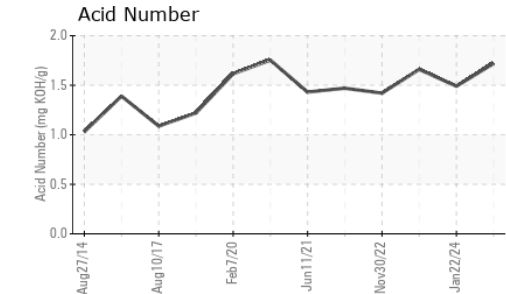
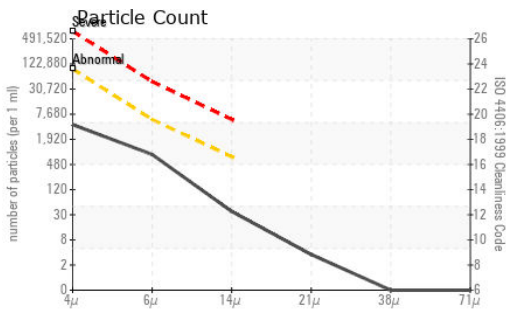
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Silicon	ppm	ASTM D5185m	>24	7	10	10
Potassium	ppm	ASTM D5185m	>20	<1	3	3
Water		WC Method	>0.075	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>80000	3780	1156	1890
Particles >6µm		ASTM D7647	>5000	731	198	281
Particles >14µm		ASTM D7647	>640	32	15	16
Particles >21µm		ASTM D7647	>160	3	7	4
Particles >38µm		ASTM D7647	>40	0	1	0
Particles >71µm		ASTM D7647	>10	0	0	0
Oil Cleanliness		ISO 4406 (c)	>23/19/16	19/17/12	17/15/11	18/15/11
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	2	2	0
Boron	ppm	ASTM D5185m		184	223	243
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		160	190	178
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m		597	703	625
Calcium	ppm	ASTM D5185m		1575	1485	1617
Phosphorus	ppm	ASTM D5185m		902	934	897
Zinc	ppm	ASTM D5185m		1007	1079	1053
Sulfur	ppm	ASTM D5185m		3258	3243	3459
Acid Number (AN)	mg KOH/g	ASTM D8045		1.72	1.49	1.66
Visc @ 40°C	cSt	ASTM D445	117	91.4	89.2	83.8



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0218910 **Received** : 08 Jul 2024
Lab Number : 06230066 **Tested** : 09 Jul 2024
Unique Number : 11113559 **Diagnosed** : 09 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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