



WEAR	ABNORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL



Area
[W49983]
 Machine Id
JOHN DEERE 824K 1DW824KXPKF694323
 Component
Hydraulic System
 Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- QTS)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0200308	JR0199788	JR0180719
Sample Date		Client Info		21 Feb 2024	29 Jan 2024	15 Dec 2023
Machine Age	hrs	Client Info		5029	4854	4354
Oil Age	hrs	Client Info		0	0	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				ABNORMAL	NORMAL	NORMAL

WEAR

The chromium level is abnormal. All other component wear rates are normal.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
PQ		ASTM D8184	>50	15	24	22
Iron	ppm	ASTM D5185m	>71	33	31	32
Chromium	ppm	ASTM D5185m	>11	▲ 14	11	10
Nickel	ppm	ASTM D5185m	>6	0	0	<1
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m		<1	0	0
Aluminum	ppm	ASTM D5185m	>11	2	3	4
Lead	ppm	ASTM D5185m	>13	<1	<1	<1
Copper	ppm	ASTM D5185m	>21	9	8	8
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

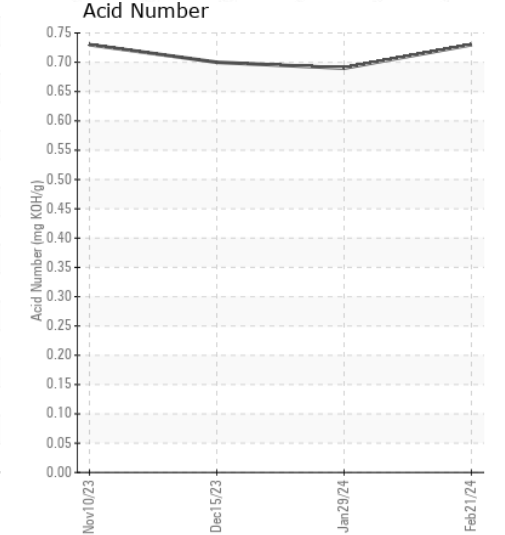
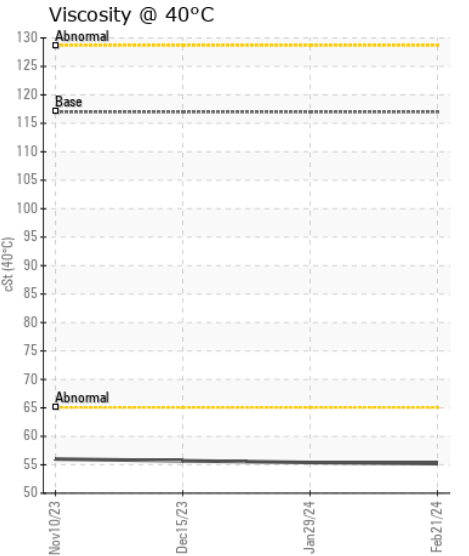
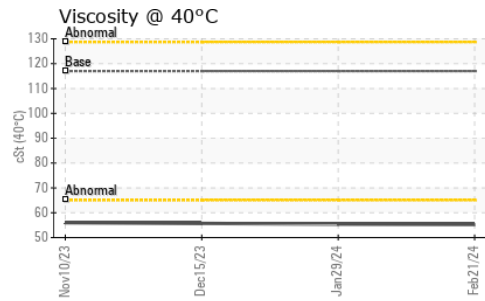
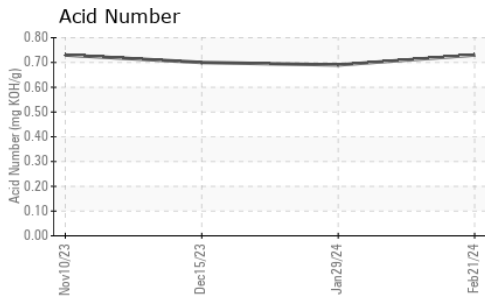
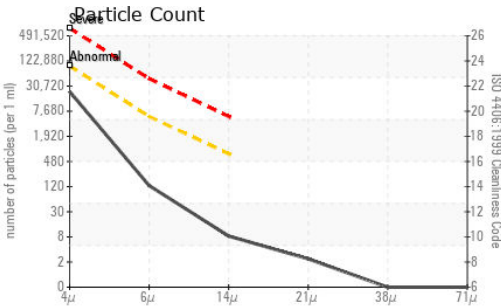
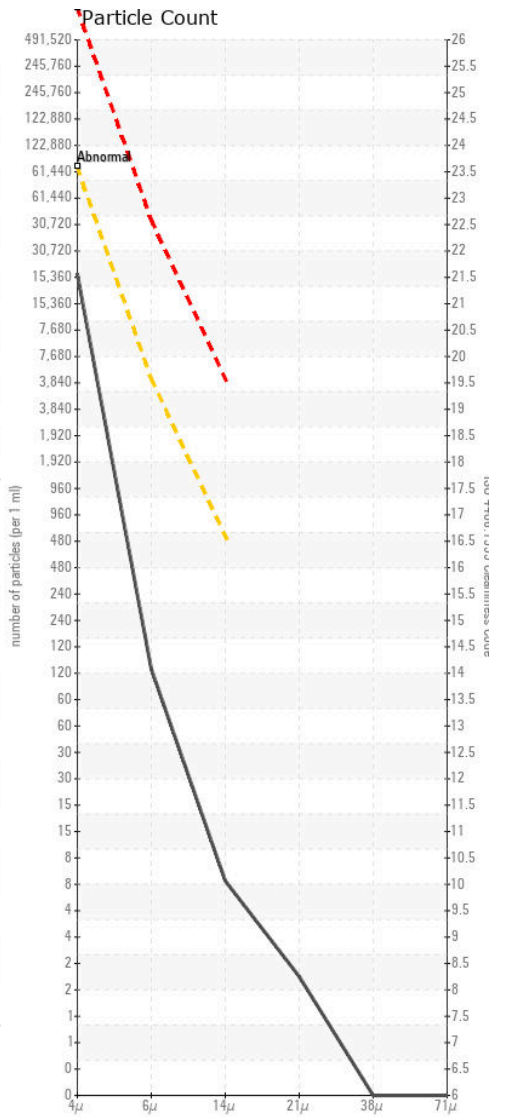
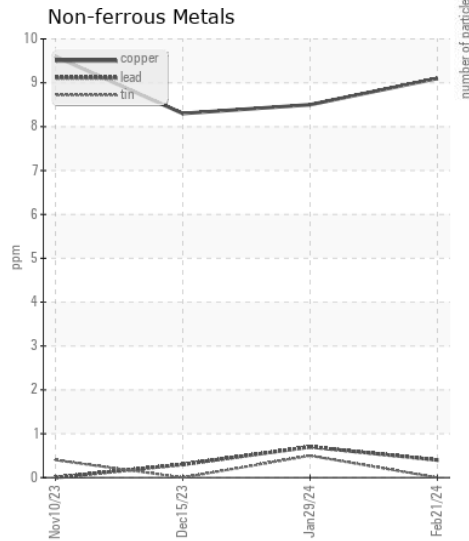
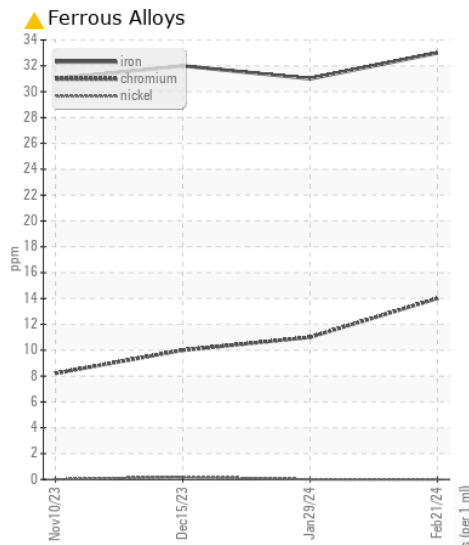
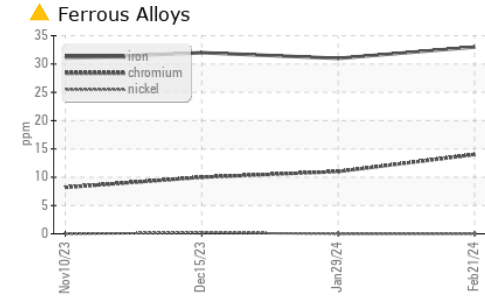
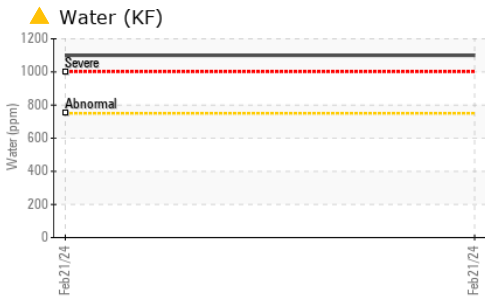
There is a light concentration of water present in the oil. The amount and size of particulates present in the system are acceptable.

Silicon	ppm	ASTM D5185m	>24	5	6	6
Potassium	ppm	ASTM D5185m	>20	0	3	3
Water	%	ASTM D6304	>0.075	▲ 0.110	---	---
ppm Water	ppm	ASTM D6304	>750	▲ 1100	---	---
Particles >4µm		ASTM D7647	>80000	19727	7710	15098
Particles >6µm		ASTM D7647	>5000	112	170	105
Particles >14µm		ASTM D7647	>640	7	19	6
Particles >21µm		ASTM D7647	>160	2	5	3
Particles >38µm		ASTM D7647	>40	0	0	0
Particles >71µm		ASTM D7647	>10	0	0	0
Oil Cleanliness		ISO 4406 (c)	>23/19/16	21/14/10	20/15/11	21/14/10
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	▲ 0.2%	NEG	NEG

FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oils additive package is suitable for further service.

Sodium	ppm	ASTM D5185m	>21	<1	4	6
Boron	ppm	ASTM D5185m		0	<1	1
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		2	2	3
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		15	6	10
Calcium	ppm	ASTM D5185m		105	89	92
Phosphorus	ppm	ASTM D5185m		566	596	589
Zinc	ppm	ASTM D5185m		809	802	792
Sulfur	ppm	ASTM D5185m		1488	1563	1528
Acid Number (AN)	mg KOH/g	ASTM D8045		0.73	0.69	0.70
Visc @ 40°C	cSt	ASTM D445	117	55.2	55.4	55.7



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0200308 **Received** : 27 Feb 2024
Lab Number : 06101528 **Tested** : 28 Feb 2024
Unique Number : 10899758 **Diagnosed** : 29 Feb 2024 - Jonathan Hester
Test Package : CONST (Additional Tests: KF, 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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