



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
JOHN DEERE 524K DW524KZ622788
Component
Hydraulic System
Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (26 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0221793	JR0170321	JRMC259357
Sample Date		Client Info		01 Jul 2024	15 Aug 2023	14 Sep 2010
Machine Age	hrs	Client Info		18257	17940	505
Oil Age	hrs	Client Info		17940	0	505
Filter Age	hrs	Client Info		17940	0	505
Oil Changed		Client Info		N/A	N/A	Not Changed
Filter Changed		Client Info		N/A	Changed	Not Changed
Sample Status				NORMAL	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
PQ		ASTM D8184	>50	16	11	---
Iron	ppm	ASTM D5185m	>71	8	10	3
Chromium	ppm	ASTM D5185m	>11	<1	2	<1
Nickel	ppm	ASTM D5185m	>6	0	0	0
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m		<1	<1	<1
Aluminum	ppm	ASTM D5185m	>11	<1	3	1
Lead	ppm	ASTM D5185m	>13	0	1	2
Copper	ppm	ASTM D5185m	>21	4	8	2
Tin	ppm	ASTM D5185m	>5	0	0	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

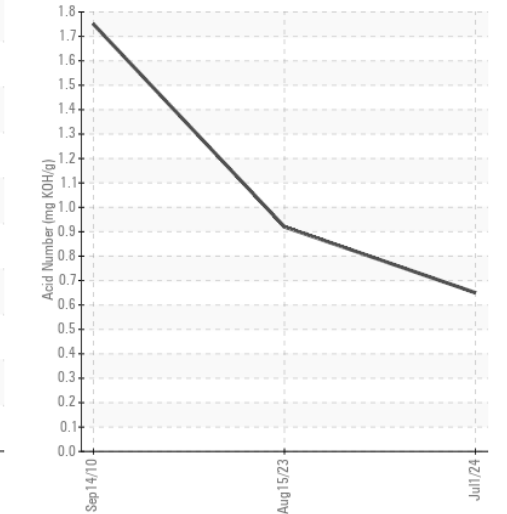
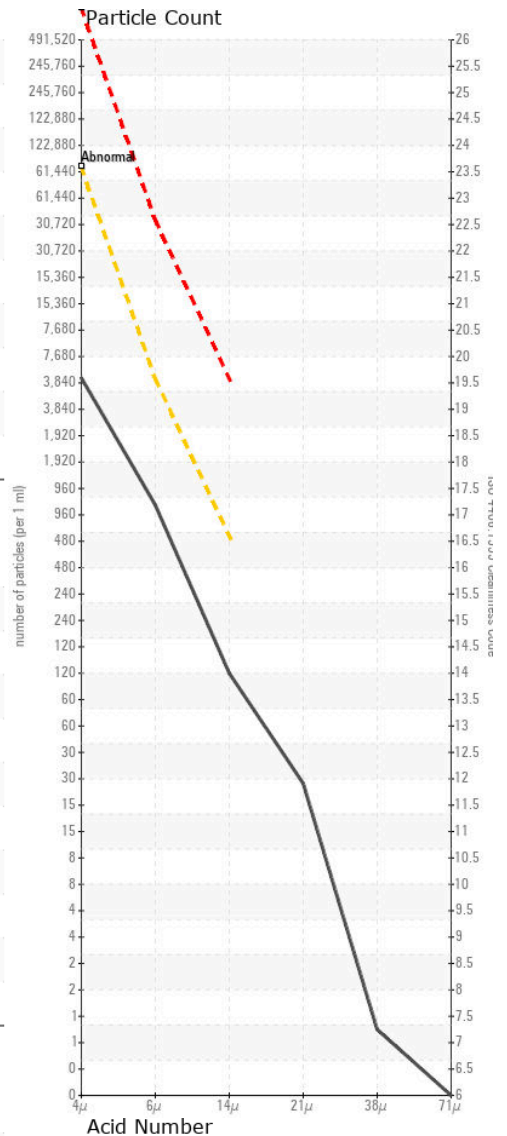
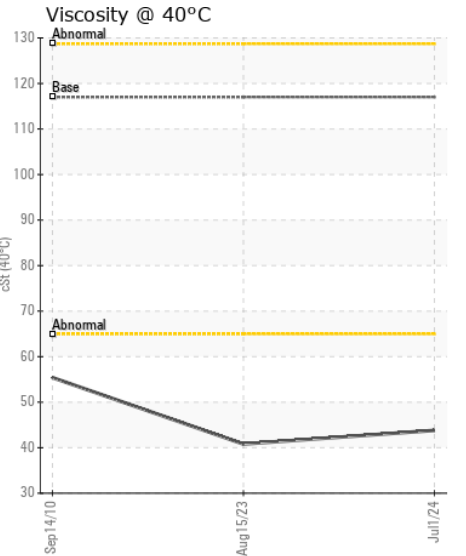
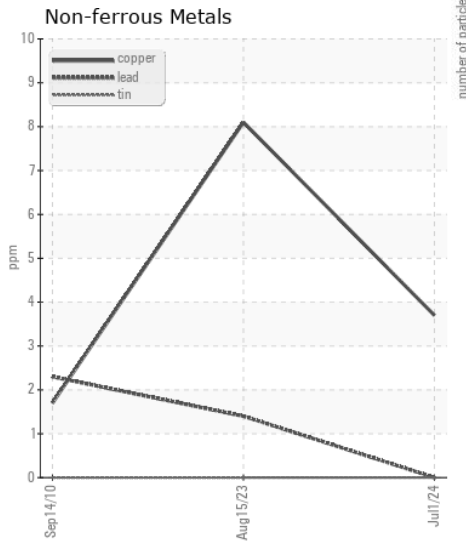
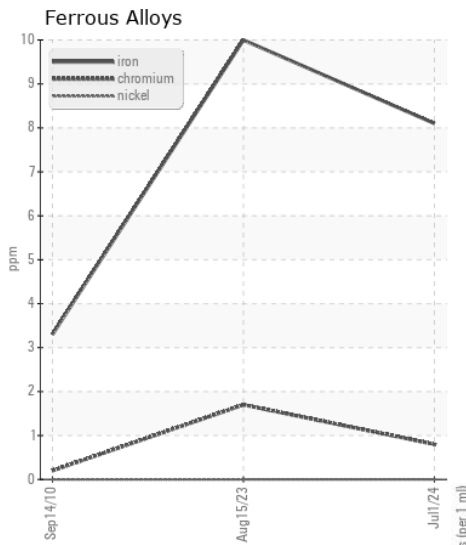
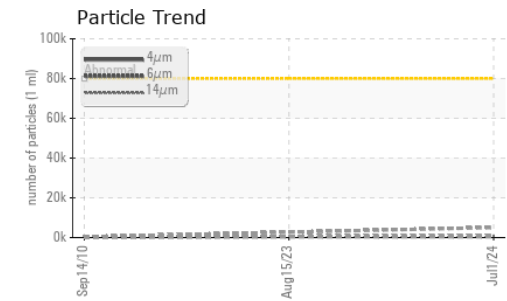
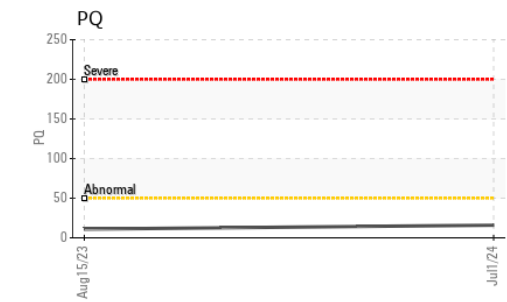
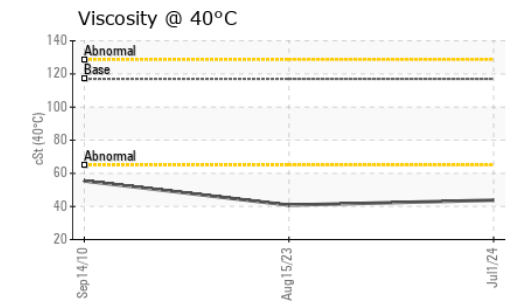
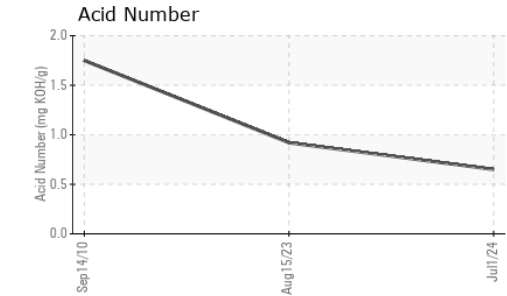
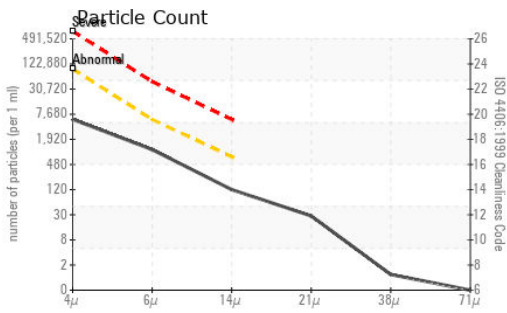
There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

Silicon	ppm	ASTM D5185m	>24	4	6	5
Potassium	ppm	ASTM D5185m	>20	1	2	0
Water		WC Method	>0.075	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>80000	5057	---	324
Particles >6µm		ASTM D7647	>5000	957	---	176
Particles >14µm		ASTM D7647	>640	106	---	30
Particles >21µm		ASTM D7647	>160	25	---	10
Particles >38µm		ASTM D7647	>40	1	---	1
Particles >71µm		ASTM D7647	>10	0	---	0
Oil Cleanliness		ISO 4406 (c)	>23/19/16	20/17/14	---	16/15/12
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	▲ MODER	LIGHT
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	5	2	4
Boron	ppm	ASTM D5185m		7	12	<1
Barium	ppm	ASTM D5185m		0	0	<1
Molybdenum	ppm	ASTM D5185m		<1	4	<1
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		31	48	234
Calcium	ppm	ASTM D5185m		1266	2025	2012
Phosphorus	ppm	ASTM D5185m		593	788	991
Zinc	ppm	ASTM D5185m		685	970	1112
Sulfur	ppm	ASTM D5185m		3335	4286	3007
Acid Number (AN)	mg KOH/g	ASTM D8045		0.65	0.92	1.75
Visc @ 40°C	cSt	ASTM D445	117	43.8	40.8	55.4



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0221793 **Received** : 05 Jul 2024
Lab Number : 06228455 **Tested** : 08 Jul 2024
Unique Number : 11111948 **Diagnosed** : 08 Jul 2024 - Jonathan Hester
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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