



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area

[W52104]

Machine Id

JOHN DEERE 824K 1DW824KXCGF674522

Component

Hydraulic System

Fluid

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

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0212213	JR0200470	JR0180497
Sample Date		Client Info		28 May 2024	28 Feb 2024	01 Dec 2023
Machine Age	hrs	Client Info		15488	15022	14622
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				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Test	UOM	Method	Limit/Abn	Current	History1	History2
PQ		ASTM D8184	>50	16	18	15
Iron	ppm	ASTM D5185m	>71	19	15	11
Chromium	ppm	ASTM D5185m	>11	4	5	6
Nickel	ppm	ASTM D5185m	>6	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	<1	<1
Aluminum	ppm	ASTM D5185m	>11	1	2	2
Lead	ppm	ASTM D5185m	>13	<1	0	0
Copper	ppm	ASTM D5185m	>21	6	4	7
Tin	ppm	ASTM D5185m	>5	0	0	0
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	LIGHT
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

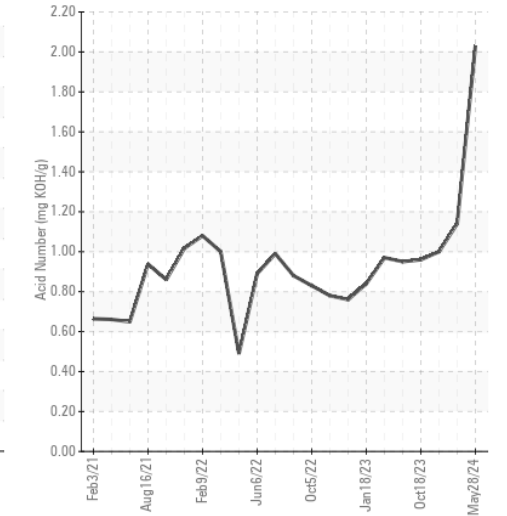
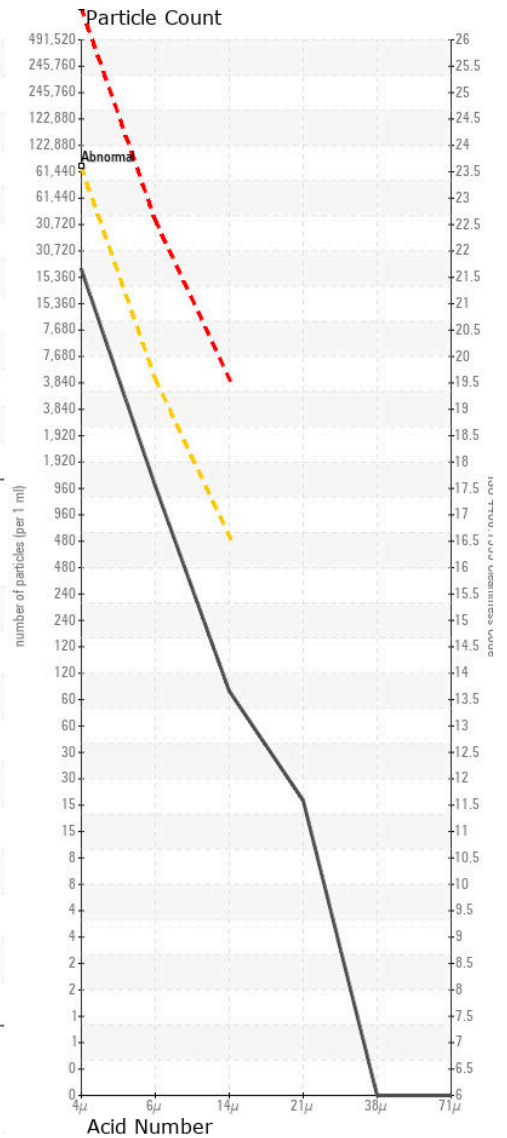
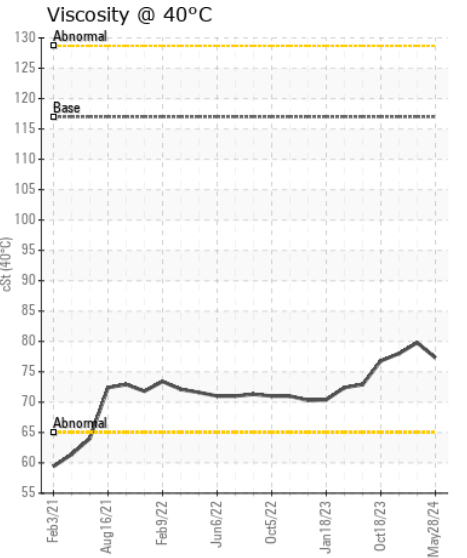
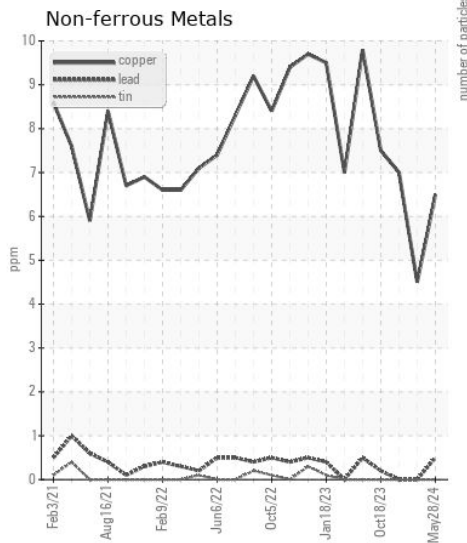
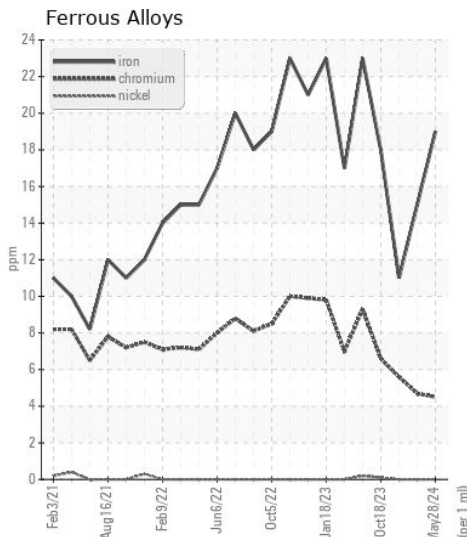
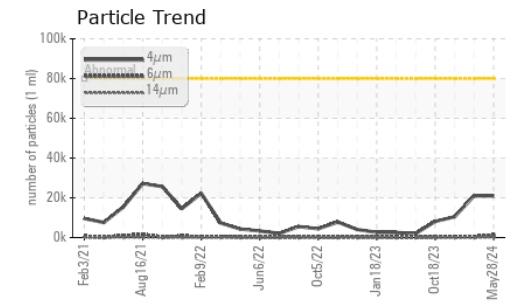
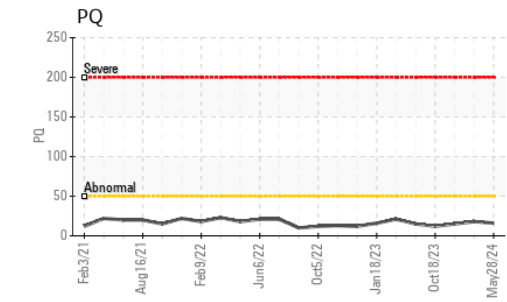
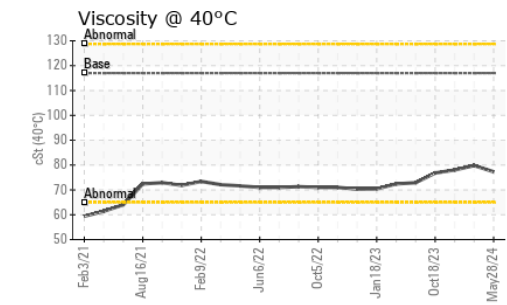
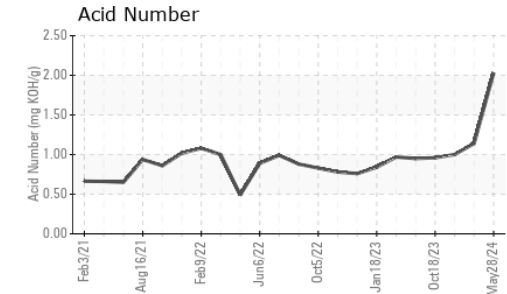
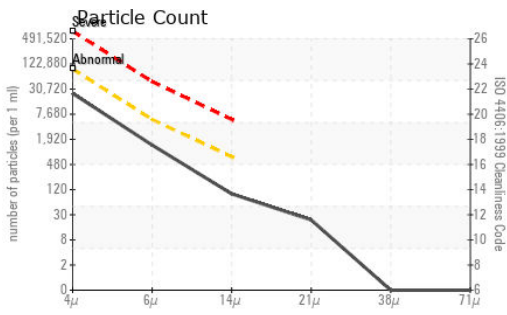
There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

Silicon	ppm	ASTM D5185m	>24	7	5	5
Potassium	ppm	ASTM D5185m	>20	0	0	0
Water		WC Method	>0.075	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>80000	20996	21012	10472
Particles >6µm		ASTM D7647	>5000	1228	392	339
Particles >14µm		ASTM D7647	>640	84	29	31
Particles >21µm		ASTM D7647	>160	20	10	10
Particles >38µm		ASTM D7647	>40	0	1	0
Particles >71µm		ASTM D7647	>10	0	1	0
Oil Cleanliness		ISO 4406 (c)	>23/19/16	22/17/14	22/16/12	21/16/12
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	5	2	7
Boron	ppm	ASTM D5185m		105	131	105
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		72	78	76
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		410	435	405
Calcium	ppm	ASTM D5185m		1584	1309	1254
Phosphorus	ppm	ASTM D5185m		886	831	822
Zinc	ppm	ASTM D5185m		1030	972	973
Sulfur	ppm	ASTM D5185m		3351	2713	2735
Acid Number (AN)	mg KOH/g	ASTM D8045		2.03	1.14	1.00
Visc @ 40°C	cSt	ASTM D445	117	77.3	79.8	78.0



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : JR0212213

Lab Number : 06196572

Unique Number : 11058695

Test Package : CONST (Additional Tests: PQ)

Received : 31 May 2024

Tested : 03 Jun 2024

Diagnosed : 03 Jun 2024 - Don Baldrige

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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