



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
[W68055]
 Machine Id
JOHN DEERE 644K 1DW644KZKDE652005
 Component
Hydraulic System
 Fluid
JOHN DEERE HYDRAU (28 GAL)

RECOMMENDATION

Resample at the next service interval to monitor. (Customer Sample Comment: W68055)

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0219734	JR0198308	JR0178331
Sample Date		Client Info		20 Jun 2024	30 Jan 2024	30 Aug 2023
Machine Age	hrs	Client Info		15382	14513	14513
Oil Age	hrs	Client Info		14968	14513	1042
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Not Changd	Changed
Filter Changed		Client Info		Not Changd	Not Changd	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

PQ		ASTM D8184	>50	17	16	16
Iron	ppm	ASTM D5185m	>71	4	<1	14
Chromium	ppm	ASTM D5185m	>11	2	2	7
Nickel	ppm	ASTM D5185m	>6	0	0	0
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m		<1	0	<1
Aluminum	ppm	ASTM D5185m	>11	<1	<1	2
Lead	ppm	ASTM D5185m	>13	1	2	7
Copper	ppm	ASTM D5185m	>21	1	1	5
Tin	ppm	ASTM D5185m	>5	<1	<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

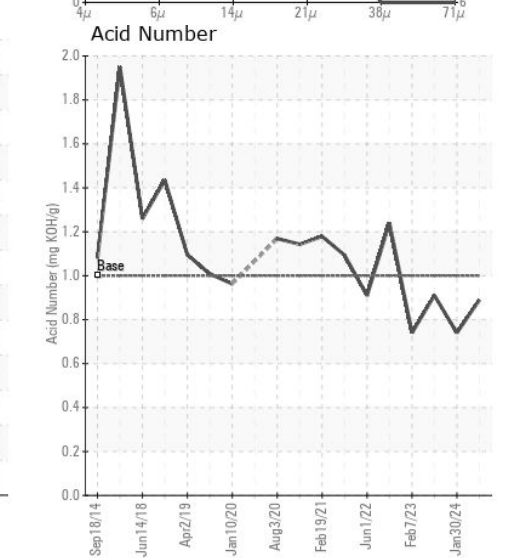
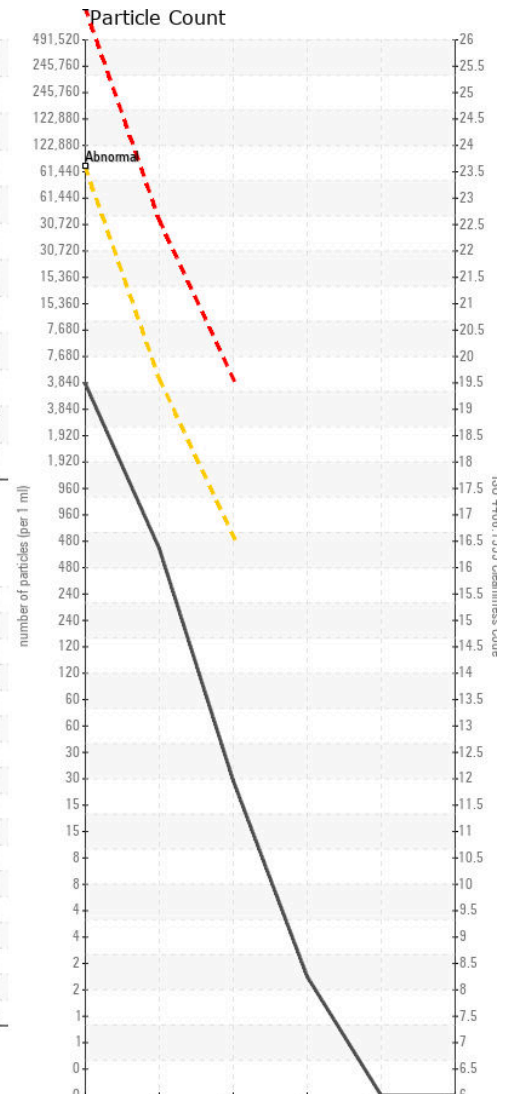
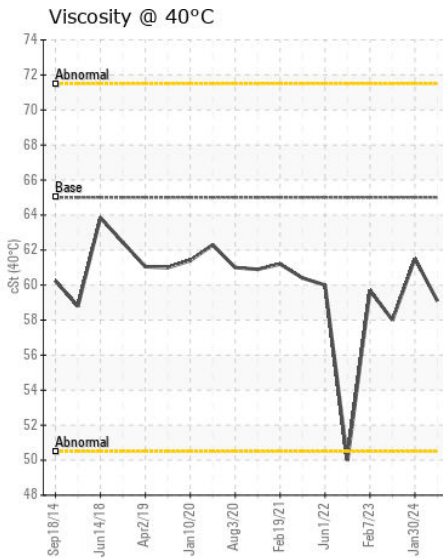
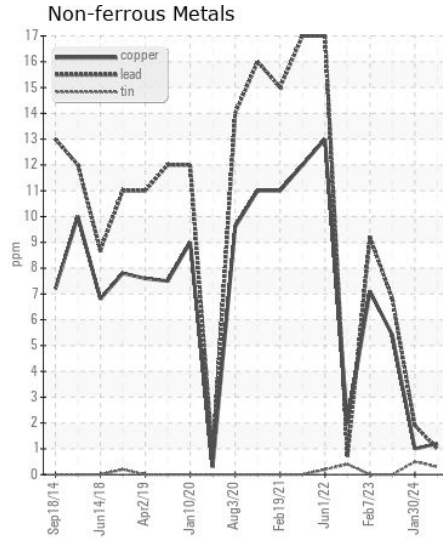
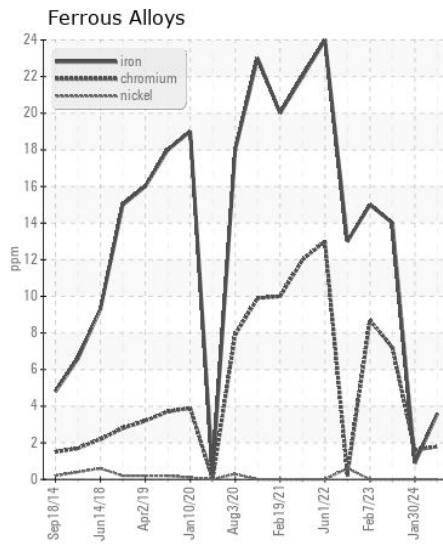
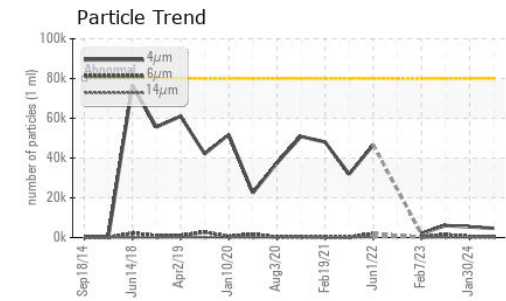
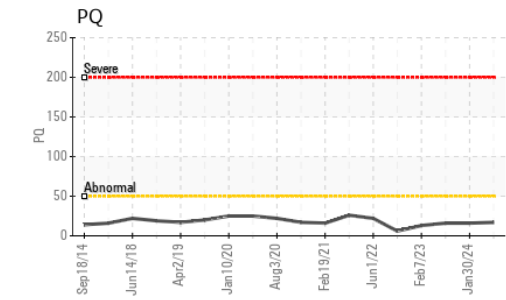
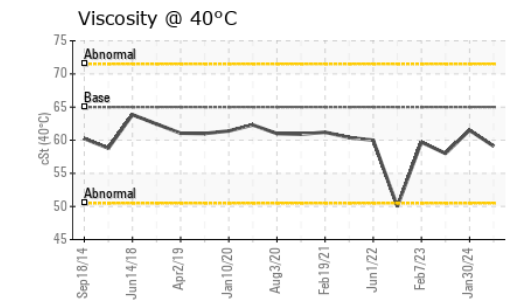
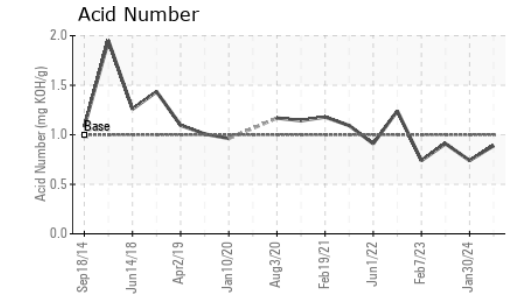
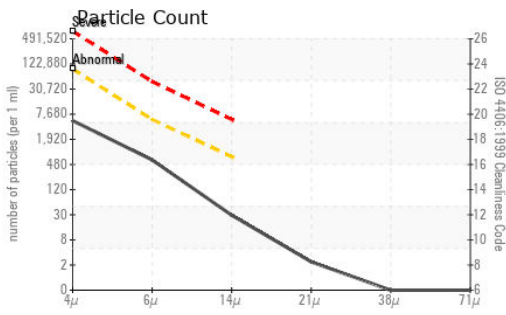
The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>24	3	2	6
Potassium	ppm	ASTM D5185m	>20	3	<1	2
Water		WC Method	>0.075	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>80000	4690	5362	6067
Particles >6µm		ASTM D7647	>5000	542	468	1444
Particles >14µm		ASTM D7647	>640	26	25	142
Particles >21µm		ASTM D7647	>160	2	6	35
Particles >38µm		ASTM D7647	>40	0	1	2
Particles >71µm		ASTM D7647	>10	0	0	0
Oil Cleanliness		ISO 4406 (c)	>23/19/16	19/16/12	20/16/12	20/18/14
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	4	1	0
Boron	ppm	ASTM D5185m		7	3	23
Barium	ppm	ASTM D5185m		0	<1	2
Molybdenum	ppm	ASTM D5185m		4	4	19
Manganese	ppm	ASTM D5185m		<1	<1	0
Magnesium	ppm	ASTM D5185m		49	29	108
Calcium	ppm	ASTM D5185m	87	1108	452	1692
Phosphorus	ppm	ASTM D5185m	727	826	689	801
Zinc	ppm	ASTM D5185m	900	990	865	992
Sulfur	ppm	ASTM D5185m	1500	2713	1805	2963
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	0.89	0.74	0.91
Visc @ 40°C	cSt	ASTM D445	65	59.1	61.5	58.0



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0219734 **Received** : 24 Jun 2024
Lab Number : 06218060 **Tested** : 25 Jun 2024
Unique Number : 11096257 **Diagnosed** : 25 Jun 2024 - Don Baldrige
Test Package : CONST (Additional Tests: PQ, PrtCount)

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Certificate L2367
 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)