



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ABNORMAL

Area
[BILLY MCCORMICK]

Machine Id
JOHN DEERE 2154G 1FF2154GANF212625

Component
Hydraulic System

Fluid
AW HYDRAULIC OIL ISO 46 (--- GAL)

RECOMMENDATION

Recommend drain oil if not already done. Reduce drain interval to 2000 hours or drain and flush and use recommended zinc free oil.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0222061	JR0177052	JR0165008
Sample Date		Client Info		08 Jul 2024	07 Mar 2024	01 Nov 2023
Machine Age	hrs	Client Info		2251	1821	1328
Oil Age	hrs	Client Info		0	0	1328
Filter Age	hrs	Client Info		0	0	1328
Oil Changed		Client Info		N/A	Changed	N/A
Filter Changed		Client Info		N/A	Changed	N/A
Sample Status				ABNORMAL	NORMAL	ABNORMAL

WEAR

All component wear rates are normal.

PQ		ASTM D8184	>50	18	16	13
Iron	ppm	ASTM D5185m	>32	7	6	3
Chromium	ppm	ASTM D5185m	>9	0	0	0
Nickel	ppm	ASTM D5185m	>5	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>9	0	0	0
Lead	ppm	ASTM D5185m	>28	0	0	<1
Copper	ppm	ASTM D5185m	>50	4	5	5
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

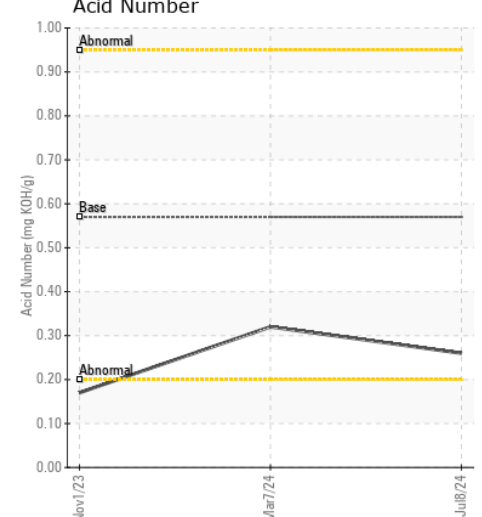
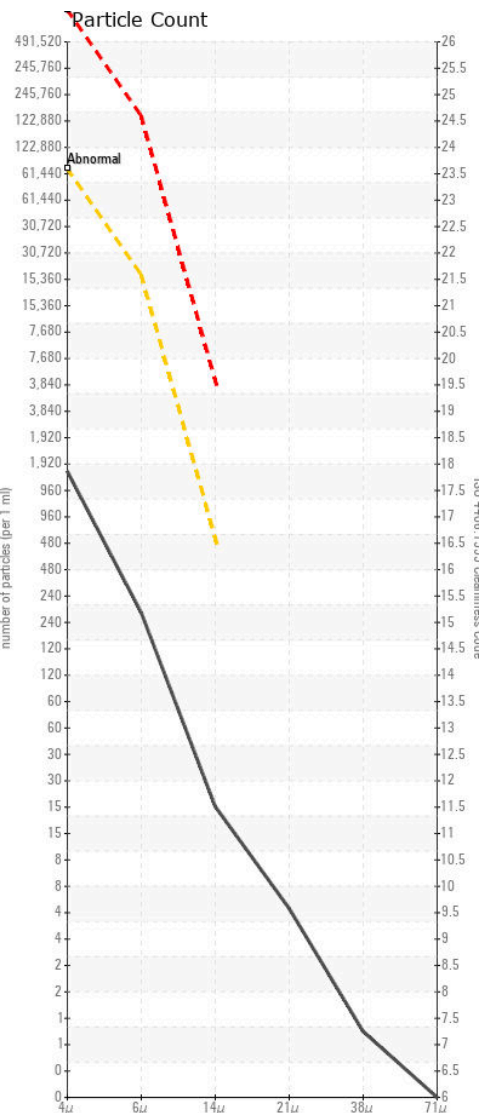
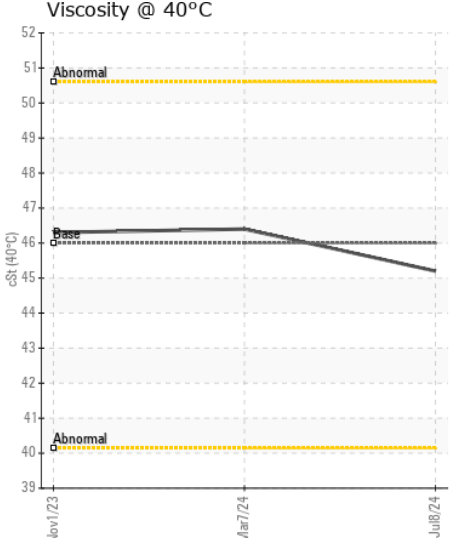
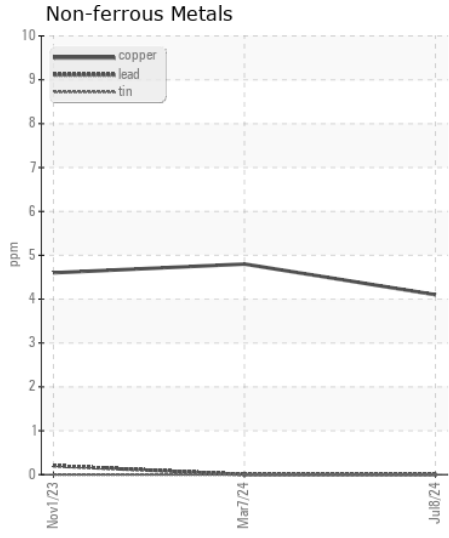
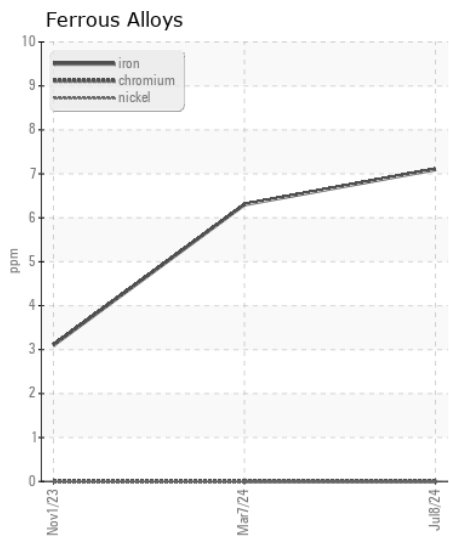
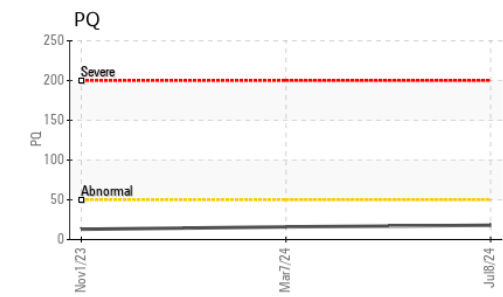
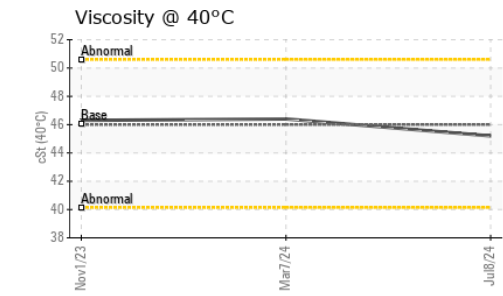
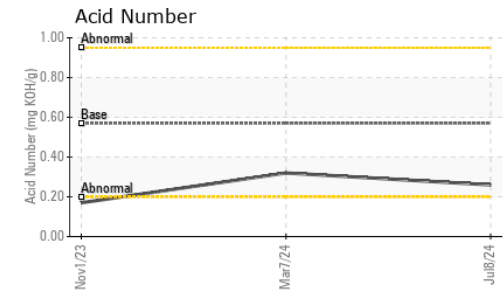
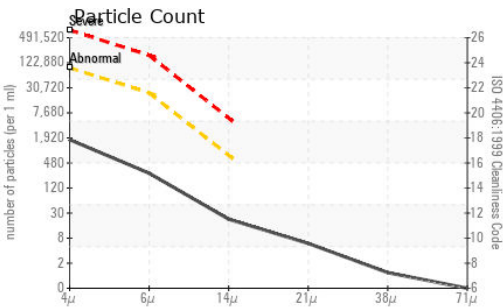
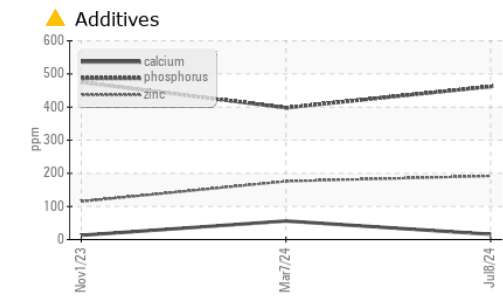
The amount and size of particulates present in the system are acceptable.

Silicon	ppm	ASTM D5185m	>11	<1	<1	0
Potassium	ppm	ASTM D5185m	>20	2	0	0
Water		WC Method	>0.075	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>80000	1527	3916	1327
Particles >6µm		ASTM D7647	>20000	240	505	321
Particles >14µm		ASTM D7647	>640	19	38	28
Particles >21µm		ASTM D7647	>160	5	13	6
Particles >38µm		ASTM D7647	>40	1	1	0
Particles >71µm		ASTM D7647	>10	0	0	0
Oil Cleanliness		ISO 4406 (c)	>23/21/16	18/15/11	19/16/12	18/16/12
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

Zinc level above manufacturer's recommendations. The AN level is acceptable for this fluid.

Sodium	ppm	ASTM D5185m	>21	1	1	<1
Boron	ppm	ASTM D5185m	5	0	0	0
Barium	ppm	ASTM D5185m	5	0	0	0
Molybdenum	ppm	ASTM D5185m	5	0	0	0
Manganese	ppm	ASTM D5185m		0	0	<1
Magnesium	ppm	ASTM D5185m	25	1	0	0
Calcium	ppm	ASTM D5185m	200	16	56	13
Phosphorus	ppm	ASTM D5185m	300	462	398	475
Zinc	ppm	ASTM D5185m	370	▲ 192	176	▲ 115
Sulfur	ppm	ASTM D5185m	2500	1016	750	545
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	0.26	0.32	0.17
Visc @ 40°C	cSt	ASTM D445	46	45.2	46.4	46.3



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0222061 **Received** : 17 Jul 2024
Lab Number : 06239088 **Tested** : 18 Jul 2024
Unique Number : 11127922 **Diagnosed** : 19 Jul 2024 - Don Baldridge
Test Package : CONST (Additional Tests: PQ)

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 T: (919)614-2260
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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)