



WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
JOHN DEERE 310E 1DW310EXLMF711960
Component
Front Differential
Fluid
JOHN DEERE HY-GARD HYD/TRANS (--- GAL)

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		JR0212929	JR0190832	JR0185932
Sample Date		Client Info		10 Apr 2024	20 Nov 2023	01 Sep 2023
Machine Age	hrs	Client Info		3482	3012	2532
Oil Age	hrs	Client Info		2499	3012	503
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changed	Not Changed	Not Changed
Filter Changed		Client Info		Not Changed	Changed	Not Changed
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

WEAR

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

PQ		ASTM D8184		215	99	137
Iron	ppm	ASTM D5185m	>500	361	294	319
Chromium	ppm	ASTM D5185m	>10	2	2	2
Nickel	ppm	ASTM D5185m	>10	5	5	5
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	2	3	5
Lead	ppm	ASTM D5185m	>25	2	0	0
Copper	ppm	ASTM D5185m	>100	▲ 303	▲ 282	▲ 294
Tin	ppm	ASTM D5185m	>10	9	9	9
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

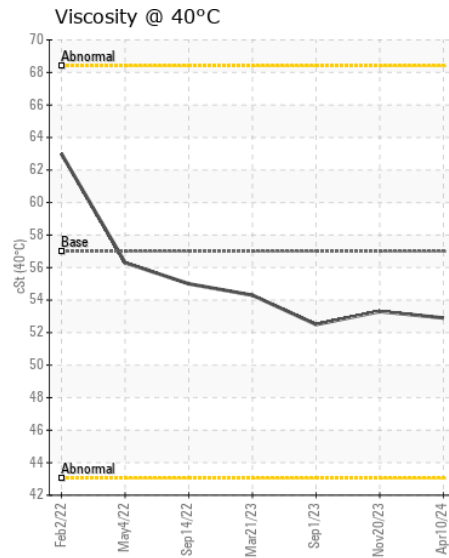
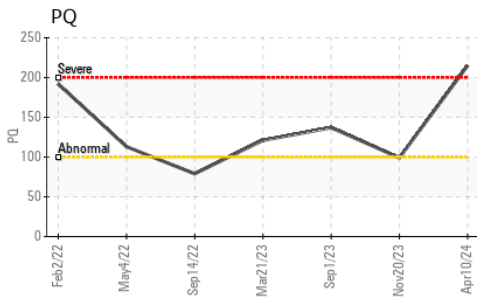
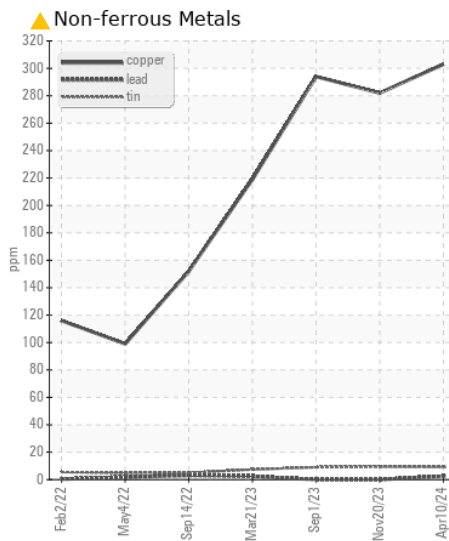
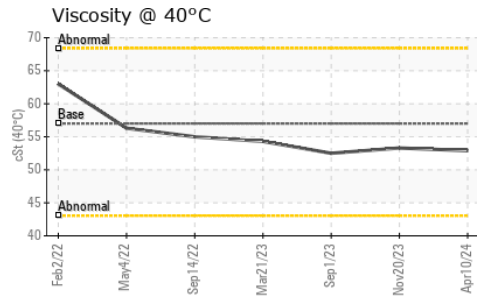
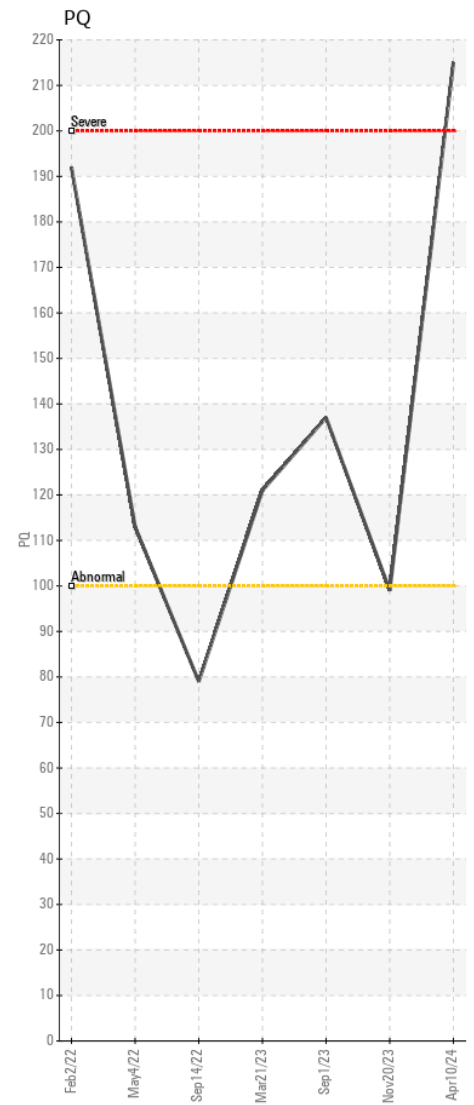
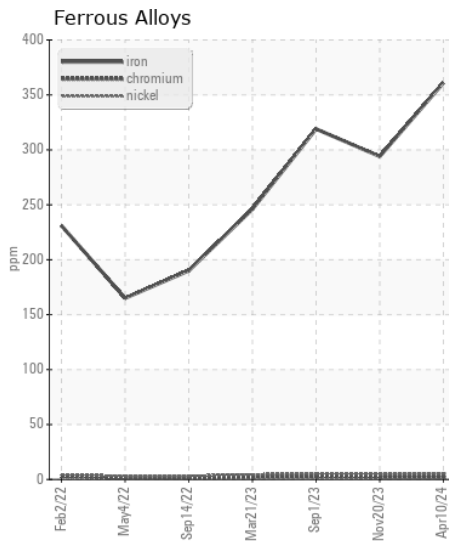
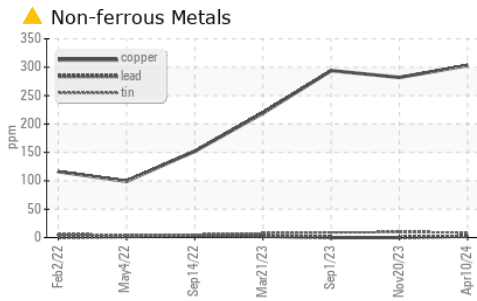
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>75	15	14	15
Potassium	ppm	ASTM D5185m	>20	0	0	2
Water		WC Method	>.2	NEG	NEG	NEG
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	>.2	NEG	NEG	NEG

FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		9	8	9
Boron	ppm	ASTM D5185m	6	30	32	37
Barium	ppm	ASTM D5185m	0	<1	0	4
Molybdenum	ppm	ASTM D5185m	0	0	0	0
Manganese	ppm	ASTM D5185m		25	23	30
Magnesium	ppm	ASTM D5185m	145	68	72	72
Calcium	ppm	ASTM D5185m	3570	3059	3372	3497
Phosphorus	ppm	ASTM D5185m	1290	997	1069	1080
Zinc	ppm	ASTM D5185m	1640	1171	1292	1320
Sulfur	ppm	ASTM D5185m		3600	3379	3750
Visc @ 40°C	cSt	ASTM D445	57.0	52.9	53.3	52.5



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0212929 **Received** : 11 Apr 2024
Lab Number : 06146149 **Tested** : 12 Apr 2024
Unique Number : 10976227 **Diagnosed** : 15 Apr 2024 - Don Baldrige
Test Package : CONST (Additional Tests: PQ)

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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)