



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
[44994]
 Machine Id
JOHN DEERE 310 P 1DW310PAKPFB06149
 Component
Middle Differential
 Fluid
JOHN DEERE HY-GARD HYD/TRANS (40 QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0203018	JR0187892	JR0176286
Sample Date		Client Info		20 Feb 2024	04 Oct 2023	20 Jun 2023
Machine Age	hrs	Client Info		1969	1437	949
Oil Age	hrs	Client Info		1969	1437	500
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	N/A	Not Changd
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

PQ		ASTM D8184		156	124	167
Iron	ppm	ASTM D5185m	>500	296	298	206
Chromium	ppm	ASTM D5185m	>10	3	3	2
Nickel	ppm	ASTM D5185m	>10	7	8	5
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m		<1	0	0
Aluminum	ppm	ASTM D5185m	>25	2	<1	2
Lead	ppm	ASTM D5185m	>25	<1	0	0
Copper	ppm	ASTM D5185m	>100	147	123	81
Tin	ppm	ASTM D5185m	>10	6	6	4
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	MODER
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

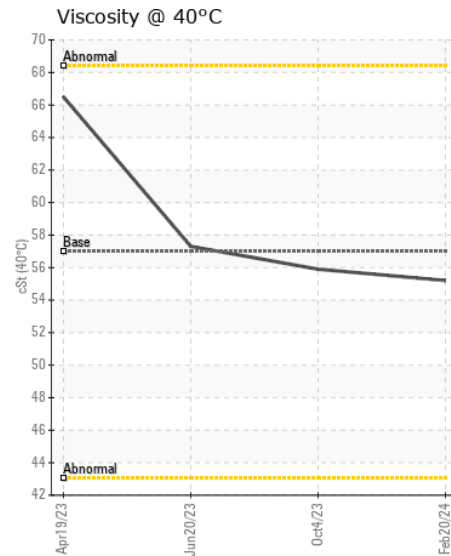
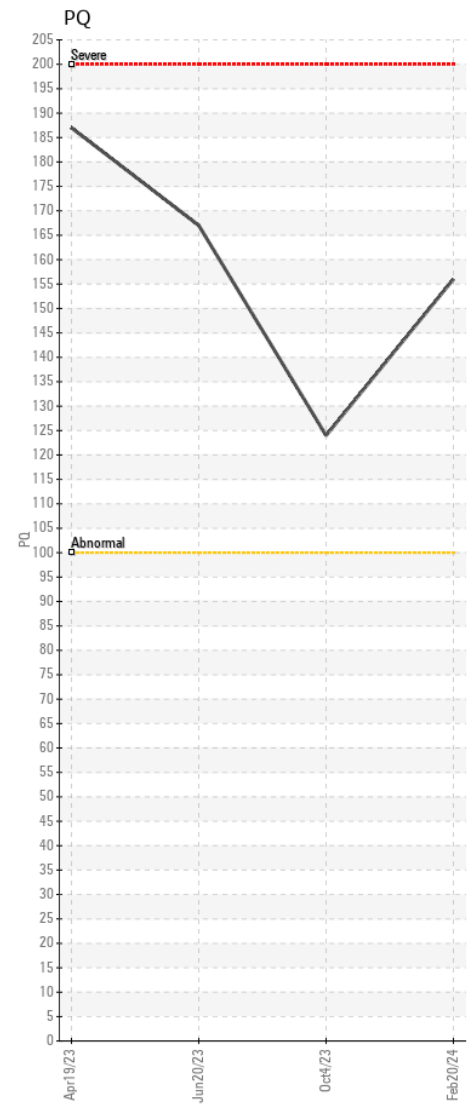
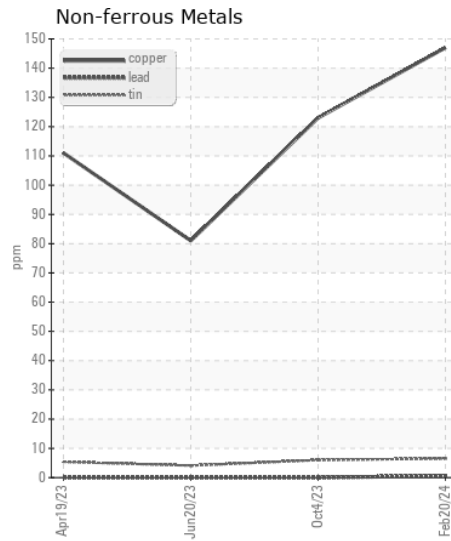
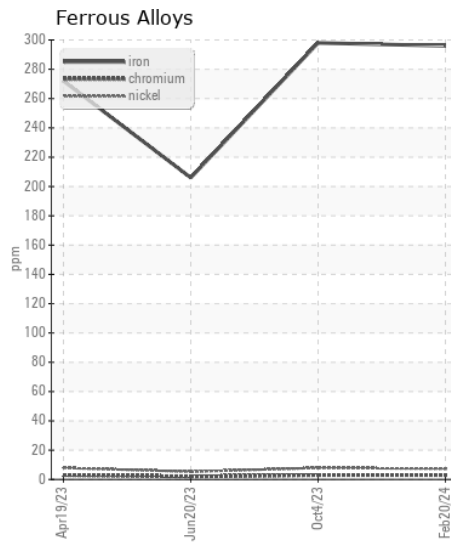
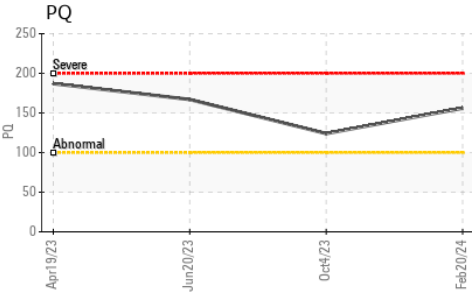
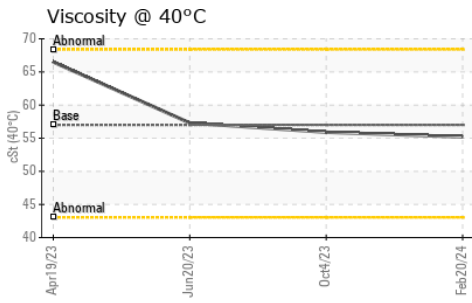
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>75	19	19	14
Potassium	ppm	ASTM D5185m	>20	2	2	0
Water		WC Method	>.2	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	LIGHT	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		8	11	11
Boron	ppm	ASTM D5185m	6	47	52	46
Barium	ppm	ASTM D5185m	0	6	0	0
Molybdenum	ppm	ASTM D5185m	0	7	7	6
Manganese	ppm	ASTM D5185m		31	35	28
Magnesium	ppm	ASTM D5185m	145	85	96	95
Calcium	ppm	ASTM D5185m	3570	3286	3649	3402
Phosphorus	ppm	ASTM D5185m	1290	1024	1170	1060
Zinc	ppm	ASTM D5185m	1640	1219	1416	1296
Sulfur	ppm	ASTM D5185m		3820	3880	3931
Visc @ 40°C	cSt	ASTM D445	57.0	55.2	55.9	57.3



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0203018 **Received** : 22 Feb 2024
Lab Number : 06097943 **Tested** : 23 Feb 2024
Unique Number : 10896173 **Diagnosed** : 25 Feb 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)