WEAR CONTAMINATION FLUID CONDITION

SEVERE SEVERE



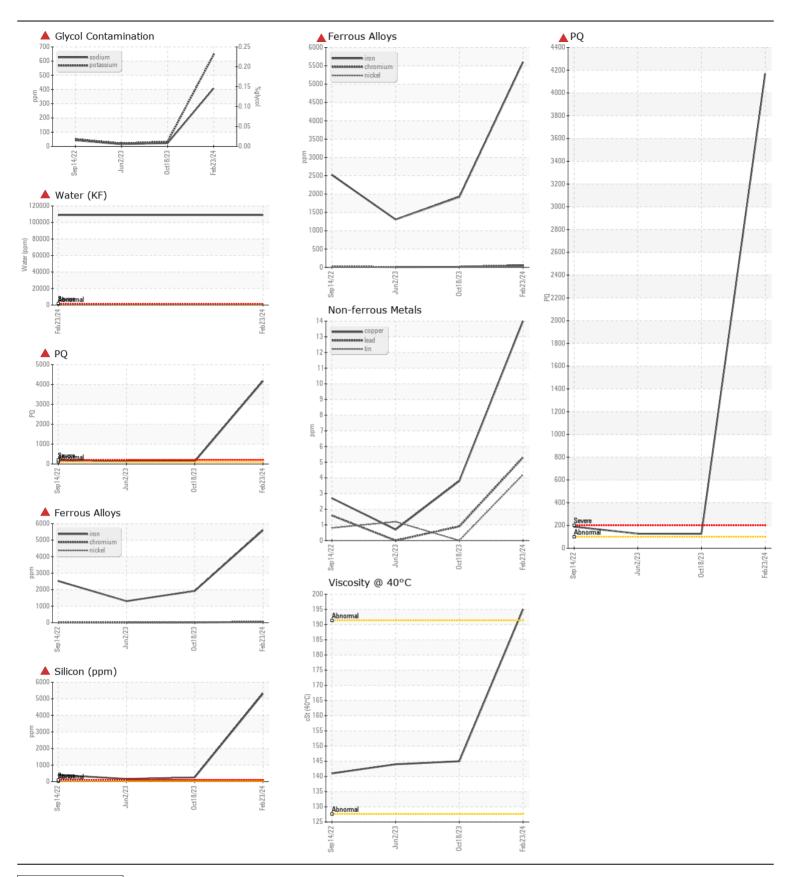
JOHN DEERE 244J LU244JX722841

Front Axle

Front Axle Fluid JOHN DEERE GL-5 80W90 (G	AL)						
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
We advise that you check for the source of possible coolant entry. We recommend that you drain the oil from the component if this has not already been done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.	Sample Number		Client Info		JR0202699	JR0181459	JR0175175
	Sample Date		Client Info		23 Feb 2024	18 Oct 2023	02 Jun 2023
	Machine Age	hrs	Client Info		13165	12906	12603
	Oil Age	hrs	Client Info		259	12906	716
	Filter Age	hrs	Client Info		0	0	0
	Oil Changed		Client Info		Not Changd	Changed	Not Changd
	Filter Changed		Client Info		N/A	N/A	N/A
	Sample Status				SEVERE	SEVERE	ABNORMAL
WEAR	PQ		ASTM D8184		4 169	127	128
Gear wear is indicated.	Iron	ppm	ASTM D5185m	>750	▲ 5600	1 921	1305
Geal weal is indicated.	Chromium	ppm	ASTM D5185m	>11	▲ 56	<u> </u>	8
	Nickel	ppm	ASTM D5185m	>10	<u> </u>	3	2
	Titanium	ppm	ASTM D5185m		61	3	2
	Silver	ppm	ASTM D5185m		<1	0	0
	Aluminum	ppm	ASTM D5185m	>21	1396	69	53
	Lead	ppm	ASTM D5185m	>49	5	<1	0
	Copper	ppm	ASTM D5185m	>101	14	4	<1
	Tin	ppm	ASTM D5185m	>10	4	0	1
	Vanadium	ppm	ASTM D5185m		2	0	<1
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
CONTAMINATION Sodium and/or potassium levels are high. There is a high concentration of water present in the oil. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.	Silicon	ppm	ASTM D5185m	>31	▲ 5314	▲ 255	<u> </u>
	Potassium	ppm	ASTM D5185m	>20	▲ 645	33	21
	Water	%	ASTM D6304	>0.1	1 0.9		
	ppm Water	ppm	ASTM D6304	>1000	109000		
	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	>0.1	0.2%	NEG	NEG
FLUID CONDITION	Sodium	ppm	ASTM D5185m	>51	408	22	15
The oil is no longer serviceable due to the presence of contaminants.	Boron	ppm	ASTM D5185m		11	6	4
	Barium	ppm	ASTM D5185m		19	0	0
	Molybdenum	ppm	ASTM D5185m		4	2	1
	Manganese	ppm	ASTM D5185m		49	14	10
	Magnesium	ppm	ASTM D5185m		128	12	10
	Calcium	ppm	ASTM D5185m		445	101	89
	Phosphorus	ppm	ASTM D5185m		945	2499	2465
	Zinc	ppm	ASTM D5185m		65	47	46
	Sulfur	ppm	ASTM D5185m		18657	31200	32619

Visc @ 40°C cSt

ASTM D445





Laboratory

Sample No.

: JR0202699 Lab Number : 06100356 Unique Number : 10898586

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

Received Tested

Diagnosed

: 28 Feb 2024

: 26 Feb 2024

: 29 Feb 2024 - Doug Bogart

GARNER - MARTIN MARIETTA 1111 E GARNER RD GARNER, NC US 27529

Contact: JASON GILMORE

Test Package : CONST (Additional Tests: KF, PQ) To discuss this sample report, contact Customer Service at 1-800-237-1369. jason.gilmore@martinmarietta.com T:

* - 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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