

WEAR SEVERE CONTAMINATION SEVERE FLUID CONDITION SEVERE

Current

History1

History2



JOHN DEERE 244J LU244JX722841

Test

UOM

Method

Limit/Abn

Component Rear Axle

JOHN DEERE GL-5 80W90 (--- GAL)

RECOMMENDATION

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.

WEAR

Bearing and/or gear wear is indicated.

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 (AI) indicate alumina-silicate (coarse dirt) ingress.

Sample Number		Client Info		JF	10202700	JR0181458	JR01/5166
Sample Date		Client Info		23	Feb 2024	18 Oct 2023	02 Jun 2023
Machine Age	hrs	Client Info		13	8165	12906	12603
Oil Age	hrs	Client Info		25	59	12906	716
Filter Age	hrs	Client Info		0		0	0
Oil Changed		Client Info		No	ot Changd	Changed	Not Changd
Filter Changed		Client Info		N/	Ά	N/A	N/A
Sample Status				SE	EVERE	ABNORMAL	ABNORMAL
PQ		ASTM D8184			2545	45	96
Iron	ppm	ASTM D5185m	>750		4259	555	321
Chromium	ppm	ASTM D5185m	>11		36	5	3
Nickel	ppm	ASTM D5185m	>10		10	2	2
Titanium	ppm	ASTM D5185m			29	2	1
Silver	ppm	ASTM D5185m			0	0	0
Aluminum	ppm	ASTM D5185m	>21		665	42	0 30
Lead	ppm	ASTM D5185m	>49		4	<1	0
Copper	ppm	ASTM D5185m	>101		149	14	6
Tin	ppm	ASTM D5185m	>10		3	0	<1
Vanadium	ppm	ASTM D5185m			<1	0	<1
White Metal	scalar	*Visual	NONE		NONE	MODER	MODER
		*Visual	NONE			NONE	NONE
Yellow Metal	scalar	riodial	NONL		NONE	NONL	HOHL
Yellow Metal	scalar		. 01		NONE	125	70
Yellow Metal Silicon	ppm	ASTM D5185m	>31		2300	▲ 135	▲ 78
Yellow Metal Silicon Potassium	ppm	ASTM D5185m ASTM D5185m	>31 >20		2300 275	▲ 135 17	▲ 78 10
Yellow Metal Silicon Potassium Water	ppm ppm %	ASTM D5185m ASTM D5185m ASTM D6304	>31 >20 >0.1		2300 275 2.89	▲ 135 17 	▲ 78 10
Yellow Metal Silicon Potassium Water ppm Water	scalar ppm ppm % ppm	ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304	>31 >20 >0.1 >1000		2300 275 2.89 28900	▲ 135 17 	▲ 78 10
Yellow Metal Silicon Potassium Water ppm Water Silt	ppm ppm % ppm scalar	ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 *Visual	>31 >20 >0.1 >1000 NONE		2300 275 2.89 28900 NONE	▲ 135 17 NONE	 78 10 NONE NONE
Yellow Metal Silicon Potassium Water ppm Water Silt Debris Sand/Dirt	ppm ppm % ppm scalar scalar	ASTM D5185m ASTM D5185m ASTM D6304 *Visual *Visual	>31 >20 >0.1 >1000 NONE NONE		2300 275 2.89 28900 NONE NONE	 135 17 NONE NONE NONE 	 78 10 NONE NONE NONE
Yellow Metal Silicon Potassium Water ppm Water Silt Debris Sand/Dirt	ppm ppm % ppm scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D6304 *Visual *Visual *Visual	>31 >20 >0.1 >1000 NONE NONE NONE		2300 275 2.89 28900 NONE NONE NONE	 135 17 NONE NONE NONE NONE 	 78 10 NONE NONE NONE NONE
Yellow Metal Silicon Potassium Water ppm Water Silt Debris Sand/Dirt Appearance	ppm ppm % ppm scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 *Visual *Visual *Visual *Visual	>31 >20 >0.1 >1000 NONE NONE NONE NORML		2300 275 2.89 28900 NONE NONE NONE NORML	 135 17 NONE NONE NORML NOBMI 	 78 10 NONE NONE NORML NOBMI
Yellow Metal Silicon Potassium Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water	ppm ppm % ppm scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D6304 *Visual *Visual *Visual *Visual *Visual *Visual	>31 >20 >0.1 >1000 NONE NONE NONE NORML NORML		2300 275 2.89 28900 NONE NONE NONE NORML NORML	 135 17 NONE NONE NORML NORML NEG 	 78 10 NONE NONE NORE NORML NORML NEG
Yellow Metal Silicon Potassium Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water	ppm ppm % ppm scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D6304 *Visual *Visual *Visual *Visual *Visual *Visual *Visual	>31 >20 >0.1 >1000 NONE NONE NORME NORML >0.1		2300 275 2.89 28900 NONE NONE NONE NORML NORML 0.2%	 135 17 NONE NORML NORML NEG 	 78 10 NONE NONE NORML NORML NEG
Yellow Metal Silicon Potassium Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium	ppm ppm % ppm scalar scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D6304 *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	 >31 >20 >0.1 >1000 NONE NONE NORML NORML >0.1 >51 		2300 275 2.89 28900 NONE NONE NORML NORML 0.2%	 135 17 NONE NONE NORML NORML NEG 13 	 78 10 NONE NONE NORML NORML NEG 10
Yellow Metal Silicon Potassium Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron	ppm ppm % ppm scalar scalar scalar scalar scalar scalar scalar ppm ppm	ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m	>31 >20 >0.1 >1000 NONE NONE NONE NORML >0.1 >51		2300 275 2.89 28900 NONE NONE NORML NORML 0.2% 198	 135 17 NONE NONE NORML NORML NEG 13 6 	 78 10 NONE NONE NORML NORML NEG 10 4
Yellow Metal Silicon Potassium Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium	ppm ppm % ppm scalar scalar scalar scalar scalar scalar ppm ppm	ASTM D5185m ASTM D5185m ASTM D6304 *Visual *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m	>31 >20 >0.1 >1000 NONE NONE NONE NORML NORML >0.1 >51		2300 275 2.89 28900 NONE NONE NORML NORML 0.2% 198 9	 135 17 NONE NONE NORML NORML NEG 13 6 0 	 78 10 NONE NONE NORML NORML NORML NEG 10 4 0
Yellow Metal Silicon Potassium Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum	ppm ppm % ppm scalar scalar scalar scalar scalar scalar gcalar ppm ppm	ASTM D5185m ASTM D5185m ASTM D6304 *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m	>31 >20 >0.1 >1000 NONE NONE NORML NORML >0.1 >51		2300 275 2.89 28900 NONE NONE NORML NORML 0.2% 198 9 9	 135 17 NONE NORML NORML NEG 13 6 0 <1 	 78 10 NONE NONE NORML NORML NEG 10 4 0 <1
Yellow Metal Silicon Potassium Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese	ppm ppm % ppm scalar scalar scalar scalar scalar scalar scalar ppm ppm	ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 *Visual *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>31 >20 >0.1 >1000 NONE NONE NORML NORML >0.1 >51		2300 275 2.89 28900 NONE NONE NORML NORML 0.2% 198 9 9 4 32	 135 17 NONE NONE NORML NORML NEG 13 6 0 <1 5 	 78 10 NONE NONE NORML NORML NEG 10 4 0 <1 3
Yellow Metal Silicon Potassium Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium	ppm ppm % ppm scalar scalar scalar scalar scalar scalar ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>31 >20 >0.1 >1000 NONE NONE NONE NORML >0.1 >51		2300 275 2.89 28900 NONE NONE NORML 0.2% 198 9 9 4 32 64	 135 17 NONE NONE NORML NORML NORML NEG 13 6 0 <1 5 20 	 78 10 NONE NONE NORML NORML NORML NEG 10 4 0 <1 3 14
Yellow Metal Silicon Potassium Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm % ppm scalar scalar scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D6304 *Visual *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>31 >20 >0.1 >1000 NONE NONE NORML NORML >0.1 >51		2300 275 2.89 28900 NONE NONE NORML NORML 0.2% 198 9 9 4 32 64 180	 135 17 NONE NONE NORML NORML NEG 13 6 0 <1 5 20 44 	 78 10 NONE NORML NORML NORML NEG 10 4 0 <1 3 14 63
Yellow Metal Silicon Potassium Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm % ppm scalar scalar scalar scalar scalar scalar scalar gpm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>31 >20 >0.1 >1000 NONE NONE NORML >0.1 >51		2300 275 2.89 28900 NONE NONE NORML 0.2% 198 9 9 4 32 64 180 624	 ▲ 135 17 NONE NONE NORML NORML NEG 13 6 0 <1 5 20 44 2501 	 78 10 NONE NONE NORML NORML NEG 10 4 0 <11 3 14 63 2421
Yellow Metal Silicon Potassium Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm % ppm scalar scalar scalar scalar scalar scalar scalar ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>31 >20 >0.1 >1000 NONE NONE NORML >0.1 >51		2300 275 2.89 28900 NONE NONE NORML NORML 0.2% 198 9 9 4 32 64 180 624 136	 135 17 NONE NONE NORML NORML NORML NEG 13 6 0 <1 5 20 44 2501 13 	 78 10 NONE NONE NORML NORML NORML 10 4 0 <1 3 14 63 2421 23
Yellow Metal Silicon Potassium Water ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm % ppm scalar scalar scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>31 >20 >0.1 >1000 NONE NONE NONE NORML >0.1 >51		2300 275 2.89 28900 NONE NONE NORML 0.2% 198 9 9 4 32 64 32 64 180 624 136 136 19401	 135 17 NONE NONE NORML NORML NORML 13 6 0 <1 5 20 44 2501 13 34767 	 78 10 NONE NONE NORML NORML NORML 10 4 0 <1 3 14 63 2421 23 34283

FLUID CONDITION

The oil is no longer serviceable due to the presence of contaminants.

Submitted By: JOHN GUASCHINO





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