

Machine Id JOHN DEERE 331G 1T0331GMEHF308385 Component Right Final Drive Fluid JOHN DEERE GL-5 80W90 (--- GAL)

RECOMMENDATION

We advise that you check all areas where dirt can enter the system. 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

Gear wear is indicated.

CONTAMINATION

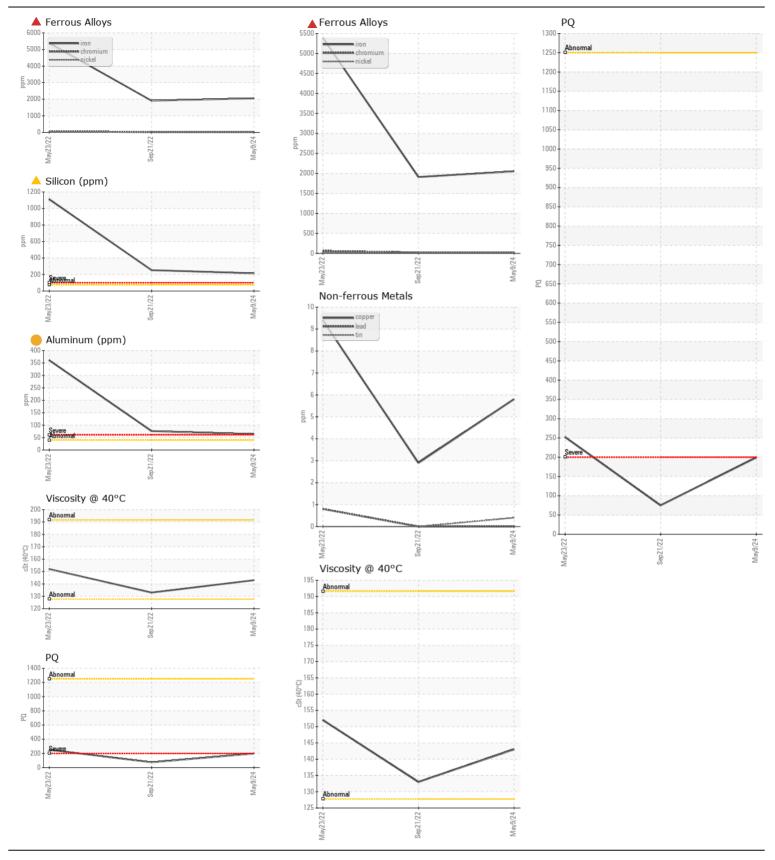
Elemental levels of silicon (Si) and aluminum (AI) indicate aluminasilicate (coarse dirt) ingress.

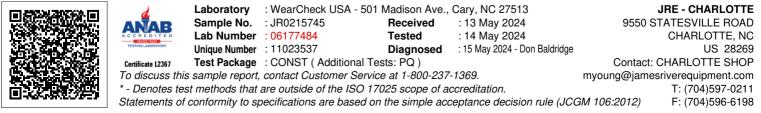
FLUID CONDITION

The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0215745	JR0142421	JR0128778
Sample Date		Client Info		09 May 2024	21 Sep 2022	23 May 2022
Machine Age	hrs	Client Info		1178	931	881
Oil Age	hrs	Client Info		931	500	0
Filter Age	hrs	Client Info		0	500	0
Oil Changed		Client Info		Not Changd	Changed	Changed
Filter Changed		Client Info		N/A	Changed	Changed
Sample Status				SEVERE	SEVERE	SEVERE
PQ		ASTM D8184	>1250	199	75	252
Iron	ppm	ASTM D5185m	>750	▲ 2052	1909	▲ 5390
Chromium	ppm	ASTM D5185m	>9	▲ 20	▲ 18	▲ 60
Nickel	ppm	ASTM D5185m	>10	13	12	29
Titanium	ppm	ASTM D5185m		6	6	27
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>40	64	76	361
Lead	ppm	ASTM D5185m	>15	0	0	<1
Copper	ppm	ASTM D5185m	>40	6	3	9
Tin	ppm	ASTM D5185m	>10	<1	0	0
Vanadium	ppm	ASTM D5185m		1	1	3
White Metal	scalar	*Visual	NONE	NONE	NONE	LIGHT
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
0'''						
Silicon	ppm	ASTM D5185m	>75	^ 215	^ 253	1 111
Potassium	ppm ppm	ASTM D5185m	>20	▲ 215 8	▲ 253 8	▲ 1111 48
Potassium Water	ppm	ASTM D5185m WC Method	>20 >0.075	215 8 NEG	253 8 NEG	 11111 48 NEG
Potassium Water Silt	ppm scalar	ASTM D5185m WC Method *Visual	>20 >0.075 NONE	 215 8 NEG NONE 	 253 8 NEG NONE 	 1111 48 NEG NONE
Potassium Water Silt Debris	ppm scalar scalar	ASTM D5185m WC Method *Visual *Visual	>20 >0.075 NONE NONE	215 8 NEG NONE NONE	 253 8 NEG NONE NONE 	 1111 48 NEG NONE NONE
Potassium Water Silt Debris Sand/Dirt	ppm scalar scalar scalar	ASTM D5185m WC Method *Visual *Visual *Visual	>20 >0.075 NONE NONE NONE	 215 8 NEG NONE NONE NONE 	 253 8 NEG NONE NONE NONE 	 1111 48 NEG NONE NONE NONE
Potassium Water Silt Debris Sand/Dirt Appearance	ppm scalar scalar scalar scalar	ASTM D5185m WC Method *Visual *Visual *Visual *Visual	>20 >0.075 NONE NONE NONE	 215 8 NEG NONE NONE NONE NORML 	 253 8 NEG NONE NONE NONE NORML 	 1111 48 NEG NONE NONE NONE NORML
Potassium Water Silt Debris Sand/Dirt Appearance Odor	ppm scalar scalar scalar scalar scalar	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual	>20 >0.075 NONE NONE NORML	 215 8 NEG NONE NONE NONE NORML NORML 	 253 8 NEG NONE NONE NONE NORE NORML NORML 	 1111 48 NEG NONE NONE NONE NORML NORML
Potassium Water Silt Debris Sand/Dirt Appearance	ppm scalar scalar scalar scalar	ASTM D5185m WC Method *Visual *Visual *Visual *Visual	>20 >0.075 NONE NONE NONE	 215 8 NEG NONE NONE NONE NORML 	 253 8 NEG NONE NONE NONE NORML 	 1111 48 NEG NONE NONE NONE NORML
Potassium Water Silt Debris Sand/Dirt Appearance Odor	ppm scalar scalar scalar scalar scalar	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual	>20 >0.075 NONE NONE NORML	 215 8 NEG NONE NONE NONE NORML NORML 	 253 8 NEG NONE NONE NONE NORE NORML NORML 	 1111 48 NEG NONE NONE NONE NORML NORML
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water	ppm scalar scalar scalar scalar scalar	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual	>20 >0.075 NONE NONE NONE NORML >0.075	 215 8 NEG NONE NONE NORE NORML NEG 	 253 8 NEG NONE NONE NORML NORML NEG 	 1111 48 NEG NONE NONE NORML NORML 0.2%
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium	ppm scalar scalar scalar scalar scalar scalar	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m	>20 >0.075 NONE NONE NONE NORML >0.075	215 8 NEG NONE NONE NORML NORML NEG 10	 253 8 NEG NONE NONE NORML NORML NEG 9 	 1111 48 NEG NONE NONE NORML NORML 0.2% 48
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum	ppm scalar scalar scalar scalar scalar scalar ppm	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m	>20 >0.075 NONE NONE NONE NORML >0.075	 215 8 NEG NONE NONE NORML NORML NEG 10 28 	 253 8 NEG NONE NONE NORML NORML NEG 9 25 	 1111 48 NEG NONE NONE NORML NORML 0.2% 48 112 68 9
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese	ppm scalar scalar scalar scalar scalar scalar ppm ppm	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>20 >0.075 NONE NONE NONE NORML >0.075	 215 8 NEG NONE NONE NORML NORML NEG 10 28 15 7 15 	 253 8 NEG NONE NONE NORML NORML NEG 9 25 21 3 17 	 1111 48 NEG NONE NONE NORML NORML 0.2% 48 112 68 9 52
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum	ppm scalar scalar scalar scalar scalar ppm ppm ppm	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m	>20 >0.075 NONE NONE NONE NORML >0.075	 215 8 NEG NONE NONE NORML NORML NEG 10 28 15 7 	 253 8 NEG NONE NONE NORML NORML NEG 9 25 21 3 	 1111 48 NEG NONE NONE NORML NORML 0.2% 48 112 68 9
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese	ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>20 >0.075 NONE NONE NONE NORML >0.075	 215 8 NEG NONE NONE NORML NORML NEG 10 28 15 7 15 	 253 8 NEG NONE NONE NORML NORML NEG 9 25 21 3 17 	 1111 48 NEG NONE NONE NORML NORML 0.2% 48 112 68 9 52
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium	ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>20 >0.075 NONE NONE NONE NORML >0.075	 215 8 NEG NONE NONE NORML NORML NEG 10 28 15 7 15 30 	 253 8 NEG NONE NONE NORML NORML NORML Q 25 21 3 17 17 	 1111 48 NEG NONE NONE NORML NORML 0.2% 48 112 68 9 52 69
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>20 >0.075 NONE NONE NONE NORML >0.075	 215 8 NEG NONE NONE NORML NORML NEG 10 28 15 7 15 30 52 	 253 8 NEG NONE NONE NORML NORML NORML 25 21 3 17 29 443 28 	 1111 48 NEG NONE NONE NORML NORML 0.2% 48 112 68 9 52 69 155
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium	ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>20 >0.075 NONE NONE NONE NORML >0.075	 215 8 NEG NONE NONE NORML NORML NEG 10 28 15 7 15 30 52 435 	 253 8 NEG NONE NONE NORML NORML NEG 9 25 21 3 17 17 29 443 	 1111 48 NEG NONE NONE NORML NORML 0.2% 48 112 68 9 52 69 155 817

Submitted By: Mike Young - CHARLOTTE SHOP





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