

Machine Id JOHN DEERE 331G 1T0331GKLNF424421 Component Left Final Drive Fluid GEAR OIL SAE 80W90 (--- GAL)

RECOMMENDATION

We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. 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.

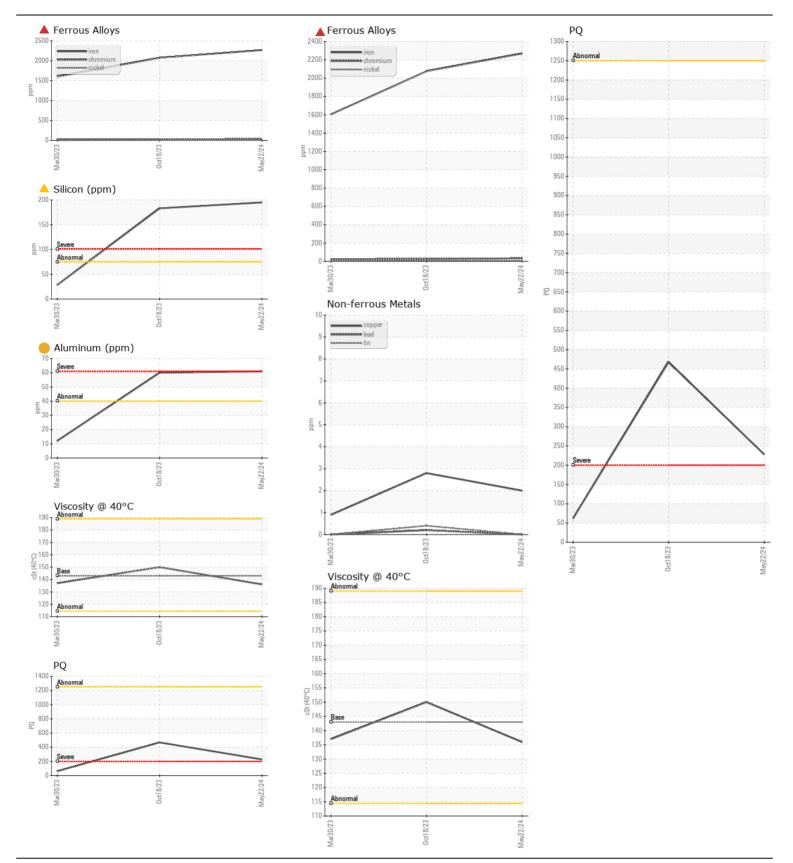
CONTAMINATION

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

FLUID CONDITION

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

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Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0215657	JR0188078	JR0162120
Sample Date		Client Info		22 May 2024	18 Oct 2023	30 Mar 2023
Machine Age	hrs	Client Info		1581	1100	562
Oil Age	hrs	Client Info		481	1100	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				SEVERE	ABNORMAL	SEVERE
PQ		ASTM D8184	>1250	228	468	62
Iron	ppm	ASTM D5185m	>750	2269	A 2075	▲ 1604
Chromium	ppm	ASTM D5185m	>9	▲ 32	▲ 25	4
Nickel	ppm	ASTM D5185m		5	6	2
Titanium	ppm	ASTM D5185m		8	7	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>40	61	60	12
Lead	ppm	ASTM D5185m	>15	0	<1	0
Copper	ppm	ASTM D5185m	>40	2	3	<1
Tin	ppm	ASTM D5185m	>10	0	<1	0
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	▲ MODER
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
		Violaal	HONE	NONE	HONE	
Cilicon						
Silicon	ppm	ASTM D5185m	>75	1 95	1 83	28
Potassium		ASTM D5185m ASTM D5185m	>75 >20	▲ 195 31	▲ 183 30	28 40
Potassium Water	ppm ppm	ASTM D5185m ASTM D5185m WC Method	>75 >20 >0.075	195 31 NEG	 183 30 NEG 	28 40 NEG
Potassium Water Silt	ppm ppm scalar	ASTM D5185m ASTM D5185m WC Method *Visual	>75 >20 >0.075 NONE	 195 31 NEG NONE 	 183 30 NEG NONE 	28 40 NEG NONE
Potassium Water Silt Debris	ppm ppm scalar scalar	ASTM D5185m ASTM D5185m WC Method *Visual *Visual	>75 >20 >0.075 NONE NONE	 195 31 NEG NONE NONE 	 183 30 NEG NONE NONE 	28 40 NEG NONE NONE
Potassium Water Silt Debris Sand/Dirt	ppm ppm scalar scalar scalar	ASTM D5185m ASTM D5185m WC Method *Visual *Visual	>75 >20 >0.075 NONE NONE NONE	 195 31 NEG NONE NONE NONE 	 183 30 NEG NONE NONE NONE 	28 40 NEG NONE NONE NONE
Potassium Water Silt Debris Sand/Dirt Appearance	ppm ppm scalar scalar scalar scalar	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual	>75 >20 >0.075 NONE NONE NONE NORML	 195 31 NEG NONE NONE NONE NORML 	 183 30 NEG NONE NONE NONE NORML 	28 40 NEG NONE NONE NONE NORML
Potassium Water Silt Debris Sand/Dirt Appearance Odor	ppm ppm scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual	>75 >20 >0.075 NONE NONE NONE NORML	 195 31 NEG NONE NONE NONE NORML NORML 	 183 30 NEG NONE NONE NONE NORML NORML 	28 40 NEG NONE NONE NONE NORML NORML
Potassium Water Silt Debris Sand/Dirt Appearance	ppm ppm scalar scalar scalar scalar	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual	>75 >20 >0.075 NONE NONE NONE NORML	 195 31 NEG NONE NONE NONE NORML 	 183 30 NEG NONE NONE NONE NORML 	28 40 NEG NONE NONE NONE NORML
Potassium Water Silt Debris Sand/Dirt Appearance Odor	ppm ppm scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual	>75 >20 >0.075 NONE NONE NONE NORML	 195 31 NEG NONE NONE NONE NORML NORML 	 183 30 NEG NONE NONE NONE NORML NORML 	28 40 NEG NONE NONE NONE NORML NORML
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water	ppm ppm scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual	>75 >20 >0.075 NONE NONE NORML NORML >0.075	 195 31 NEG NONE NONE NORE NORML NEG 	 183 30 NEG NONE NONE NORML NORML NEG 	28 40 NEG NONE NONE NONE NORML NORML NEG
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium	ppm ppm scalar scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m	>75 >20 >0.075 NONE NONE NORML NORML >0.075 >170	 195 31 NEG NONE NONE NORML NORML NEG 5 	 183 30 NEG NONE NONE NORML NORML NEG 7 	28 40 NEG NONE NONE NORML NORML NEG 13
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron	ppm ppm scalar scalar scalar scalar scalar scalar gpm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m	>75 >20 >0.075 NONE NONE NORML >0.075 >170 400	 195 31 NEG NONE NONE NORML NORML NEG 5 30 	 183 30 NEG NONE NONE NORML NORML NEG 7 24 	28 40 NEG NONE NONE NORML NORML NEG 13 64
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium	ppm ppm scalar scalar scalar scalar scalar scalar ppm ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m	>75 >20 >0.075 NONE NONE NORML NORML >0.075 >170 400 200	 195 31 NEG NONE NONE NORML NORML NORML NEG 5 30 19 	 183 30 NEG NONE NONE NORML NORML NORML NEG 7 24 31 	28 40 NEG NONE NONE NORML NORML NEG 13 64 79
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum	ppm ppm scalar scalar scalar scalar scalar scalar ppm ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m	>75 >20 >0.075 NONE NONE NORML NORML >0.075 >170 400 200	 195 31 NEG NONE NONE NORML NORML NEG 5 30 19 3 	 183 30 NEG NONE NONE NORML NORML NEG 7 24 31 2 	28 40 NEG NONE NONE NORML NORML NEG 13 64 79 2
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese	ppm ppm scalar scalar scalar scalar scalar gpm ppm ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>75 >20 >0.075 NONE NORME NORML >0.075 >170 400 200 12	 195 31 NEG NONE NONE NORML NORML NEG 5 30 19 3 19 	 183 30 NEG NONE NONE NORML NORML NEG 7 24 31 2 19 	28 40 NEG NONE NONE NORML NORML NEG 13 64 79 2 17
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium	ppm ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>75 >20 >0.075 NONE NONE NORML >0.075 >170 400 200 12	 195 31 NEG NONE NONE NORML NORML NORML NEG 5 30 19 3 19 4 	 183 30 NEG NONE NONE NORML NORML NEG 7 24 31 2 19 3 	28 40 NEG NONE NONE NORML NORML NEG 13 64 79 2 17 13
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium	ppm ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>75 >20 >0.075 NONE NONE NORML >0.075 >170 400 200 12	 195 31 NEG NONE NONE NORML NORML NEG 5 30 19 3 19 4 22 	 183 30 NEG NONE NONE NORML NORML NEG 7 24 31 2 19 3 23 	28 40 NEG NONE NONE NORML NORML NEG 13 64 79 2 17 2 17 13
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>75 >20 >0.075 NONE NONE NORML NORML >0.075 >170 400 200 12 12 12 150 1650	 195 31 NEG NONE NONE NORML NORML NEG 5 30 19 3 19 4 22 434 	 183 30 NEG NONE NONE NORML NORML NEG 7 24 31 2 19 3 23 460 	28 40 NEG NONE NONE NORML NORML NEG 13 64 79 2 17 17 13 52 875



CARLTON'S BACKHOE Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. : JR0215657 Received : 29 May 2024 9550 STATESVILLE ROAD ĕ Lab Number : 06194279 Tested CHARLOTTE, NC : 30 May 2024 Diagnosed Unique Number : 11056402 : 31 May 2024 - Don Baldridge US 28269 Test Package : CONST (Additional Tests: PQ) Contact: LEO Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. T: (704)547-0211 * - 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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