

Machine Id Machine Id HITACHI 210LC 1FFDCJ70TDE330390 Component Pump Drive Fluid JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (2 QTS)

RECOMMENDATION

Resample at the next service interval to monitor. (Customer Sample Comment: W65778)

WEAR

All component wear rates are normal.

CONTAMINATION

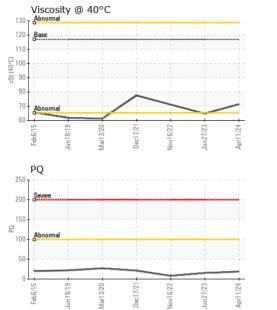
There is no indication of any contamination in the oil.

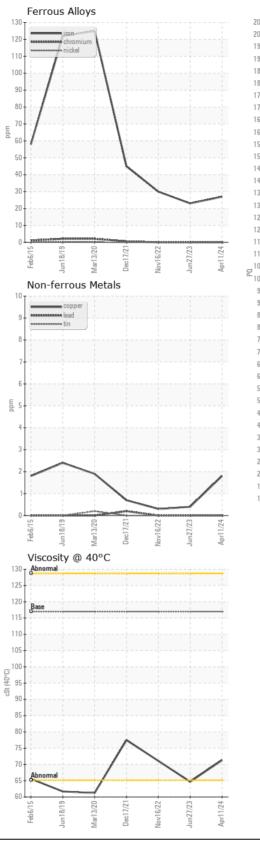
FLUID CONDITION

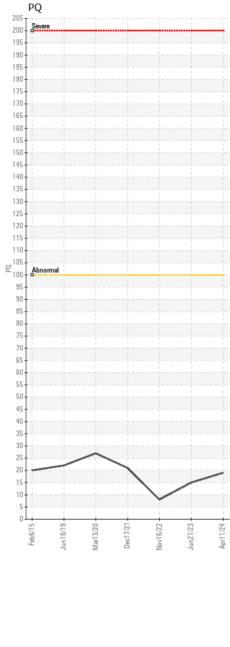
The condition of the oil is acceptable for the time in service.

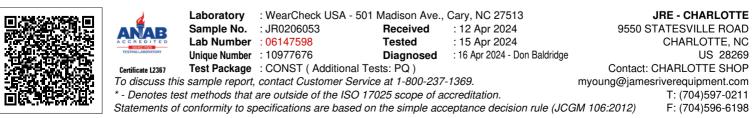
. (415)						
Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0206053	JR0170865	JR0150503
Sample Date		Client Info		11 Apr 2024	27 Jun 2023	16 Nov 2022
Machine Age	hrs	Client Info		6978	6502	6023
Oil Age	hrs	Client Info		6499	6023	500
Filter Age	hrs	Client Info		0	0	500
Oil Changed		Client Info		Changed	Not Changd	Changed
Filter Changed		Client Info		N/A	Not Changd	Changed
Sample Status				NORMAL	NORMAL	NORMAL
PQ		ASTM D8184		19	15	8
Iron	ppm	ASTM D5185m	>500	27	23	30
Chromium	ppm	ASTM D5185m	>15	0	0	0
Nickel	ppm	ASTM D5185m	>10	0	0	0
Titanium	ppm	ASTM D5185m	210	0	0	<1
Silver	ppm	ASTM D5185m		0	0	2
Aluminum	ppm	ASTM D5185m	>20	5	6	4
Lead	ppm	ASTM D5185m	220	0	0	0
Copper	ppm	ASTM D5185m	>35	2	<1	<1
Tin	ppm	ASTM D5185m	>4	0	0	0
Vanadium	ppm	ASTM D5185m	~ 1	0	0	0
		*Visual	NONE	-	÷	NONE
White Metal	scalar			NONE		
White Metal Yellow Metal	scalar scalar			NONE	NONE	
White Metal Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal Silicon	scalar ppm	*Visual ASTM D5185m	NONE >75	NONE 10	NONE 8	NONE 13
Yellow Metal Silicon Potassium	scalar ppm	*Visual ASTM D5185m ASTM D5185m	NONE >75 >20	NONE 10 0	NONE 8 2	NONE 13 3
Yellow Metal Silicon Potassium Water	scalar ppm ppm	*Visual ASTM D5185m ASTM D5185m WC Method	NONE >75 >20 >0.2	NONE 10 0 NEG	NONE 8 2 NEG	NONE 13 3 NEG
Yellow Metal Silicon Potassium Water Silt	scalar ppm ppm scalar	*Visual ASTM D5185m ASTM D5185m WC Method *Visual	NONE >75 >20 >0.2 NONE	NONE 10 0 NEG NONE	NONE 8 2 NEG NONE	NONE 13 3 NEG NONE
Yellow Metal Silicon Potassium Water Silt Debris	scalar ppm ppm scalar scalar	*Visual ASTM D5185m ASTM D5185m WC Method *Visual *Visual	NONE >75 >20 >0.2 NONE NONE	NONE 10 0 NEG NONE NONE NONE	NONE 8 2 NEG NONE NONE	NONE 13 3 NEG NONE NONE
Yellow Metal Silicon Potassium Water Silt Debris Sand/Dirt	scalar ppm ppm scalar scalar scalar	*Visual ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual	NONE >75 >20 >0.2 NONE NONE NONE	NONE 10 0 NEG NONE NONE NONE	NONE 8 2 NEG NONE NONE NONE	NONE 13 3 NEG NONE NONE NONE
Yellow Metal Silicon Potassium Water Silt Debris Sand/Dirt Appearance	scalar ppm ppm scalar scalar scalar scalar	*Visual ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual	NONE >75 >20 >0.2 NONE NONE NONE NORML	NONE 10 0 NEG NONE NONE NONE	NONE 8 2 NEG NONE NONE NONE	NONE 13 3 NEG NONE NONE NONE NORML
Yellow Metal Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor	scalar ppm ppm scalar scalar scalar scalar scalar	*Visual ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual	NONE >75 >20 >0.2 NONE NONE NORE NORML	NONE 10 0 NEG NONE NONE NONE NORML NORML	NONE 8 2 NEG NONE NONE NONE NORML NORML	NONE 13 3 NEG NONE NONE NONE NONE NORML NORML
Yellow Metal Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water	scalar ppm ppm scalar scalar scalar scalar scalar scalar	*Visual ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual	NONE >75 >20 >0.2 NONE NONE NORE NORML	NONE 10 0 NEG NONE NONE NONE NORML NORML NEG	NONE 8 2 NEG NONE NONE NONE NORML NORML NEG	NONE 13 3 NEG NONE NONE NONE NONE NORML NORML NEG
Yellow Metal Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium	scalar ppm scalar scalar scalar scalar scalar scalar scalar	*Visual ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m	NONE >75 >20 >0.2 NONE NONE NORE NORML	NONE 10 0 NEG NONE NONE NORML NORML NEG 2	NONE 8 2 NEG NONE NONE NORML NORML NEG 3	NONE 13 3 NEG NONE NONE NONE NORML NORML NEG 0
Yellow Metal Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron	scalar ppm scalar scalar scalar scalar scalar scalar scalar ppm	*Visual ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m	NONE >75 >20 >0.2 NONE NONE NORE NORML	NONE 10 0 NEG NONE NONE NORML NORML NEG 2 308	NONE 8 2 NEG NONE NONE NORML NORML NEG 3 47	NONE 13 3 NEG NONE NONE NONE NORML NORML NEG 0 286
Yellow Metal Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium	scalar ppm scalar scalar scalar scalar scalar scalar gpm ppm	*Visual ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m	NONE >75 >20 >0.2 NONE NONE NORE NORML	NONE 10 0 NEG NONE NONE NORML NORML NEG 2 308 <1	NONE 8 2 NEG NONE NONE NORML NORML NEG 3 47 0	NONE 13 3 NEG NONE NONE NONE NORML NORML NEG 0 286 0
Yellow Metal Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium	scalar ppm scalar scalar scalar scalar scalar scalar ppm ppm	*Visual ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m	NONE >75 >20 >0.2 NONE NONE NORE NORML	NONE 10 0 NEG NONE NONE NONE NORML NORML NEG 2 308 <1 241	NONE 8 2 NEG NONE NONE NORML NORML NEG 3 47 0 84	NONE 13 NEG NONE NONE NONE NORML NORML NEG 0 286 0 254
Yellow Metal Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese	scalar ppm scalar scalar scalar scalar scalar scalar ppm ppm ppm	*Visual ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m	NONE >75 >20 >0.2 NONE NONE NORE NORML	NONE 10 0 NEG NONE NONE NORML NORML NEG 2 308 <1 241 1	NONE 8 2 NEG NONE NONE NORML NORML NEG 3 47 0 84 2	NONE 13 3 NEG NONE NONE NORML NORML NEG 0 286 0 254 <1
Yellow Metal Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium	scalar ppm scalar scalar scalar scalar scalar scalar ppm ppm ppm ppm	*Visual ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	NONE >75 >20 >0.2 NONE NONE NORE NORML	NONE 10 0 NEG NONE NONE NONE NORML NORML 2 308 <1 241 1 785	NONE 8 2 NEG NONE NONE NORML NORML NEG 3 47 0 84 21 17	NONE 13 3 NEG NONE NONE NORML NORML NEG 0 286 0 254 <1 697
Yellow Metal Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium	scalar ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm	*Visual ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	NONE >75 >20 >0.2 NONE NONE NORE NORML	NONE 10 0 NEG NONE NONE NORML NORML 2 308 <1 241 1 785 1454	NONE 8 2 NEG NONE NONE NORML NORML NORML NORML 3 47 0 84 <1 17 3506	NONE 13 NEG NONE NONE NONE NORML NORML NEG 0 286 0 254 <1 697 1603
Yellow Metal Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium	scalar ppm scalar scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm	*Visual ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	NONE >75 >20 >0.2 NONE NONE NORE NORML	NONE 10 0 NEG NONE NONE NORML NORML NEG 2 308 <1 241 1 241 1 785 1454 971	NONE 8 2 NEG NONE NORML NORML NORML NEG 3 47 0 84 <11 17 3506 960	NONE 13 3 NEG NONE NONE NONE NORML NORML NEG 0 286 0 254 <1 697 1603 926

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