



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
HITACHI 190W-6 HCMLBH60V00005009
 Component
Pump Drive
 Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0209226	JR0156695	JR0094523
Sample Date		Client Info		10 Apr 2024	28 Dec 2022	20 Aug 2021
Machine Age	hrs	Client Info		5019	2553	489
Oil Age	hrs	Client Info		0	2553	489
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Not Changd	Not Changd
Filter Changed		Client Info		None	N/A	N/A
Sample Status				NORMAL	ATTENTION	NORMAL

WEAR

All component wear rates are normal.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
PQ		ASTM D8184		17	10	20
Iron	ppm	ASTM D5185m	>500	191	57	42
Chromium	ppm	ASTM D5185m	>15	2	<1	<1
Nickel	ppm	ASTM D5185m	>10	0	0	0
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>20	4	2	<1
Lead	ppm	ASTM D5185m		0	0	0
Copper	ppm	ASTM D5185m	>35	<1	<1	2
Tin	ppm	ASTM D5185m	>4	0	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	MODER	LIGHT
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

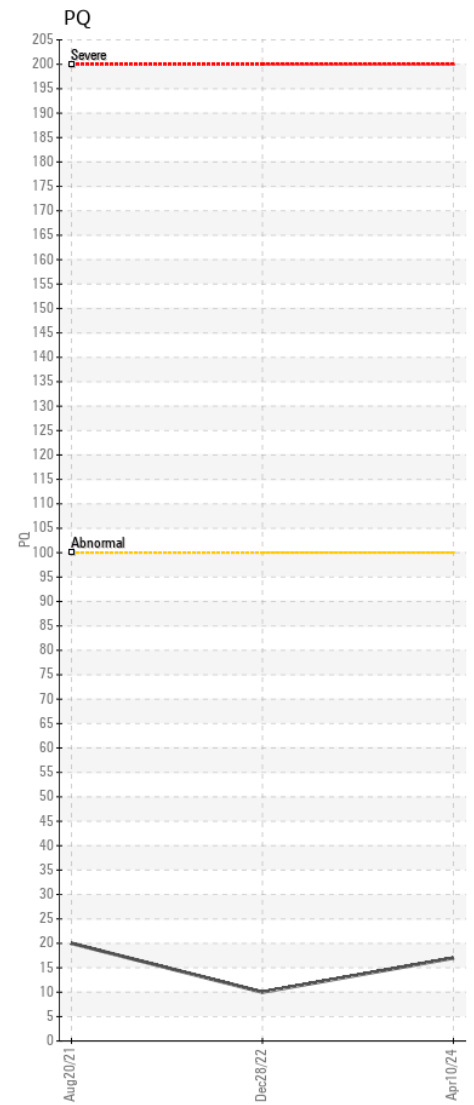
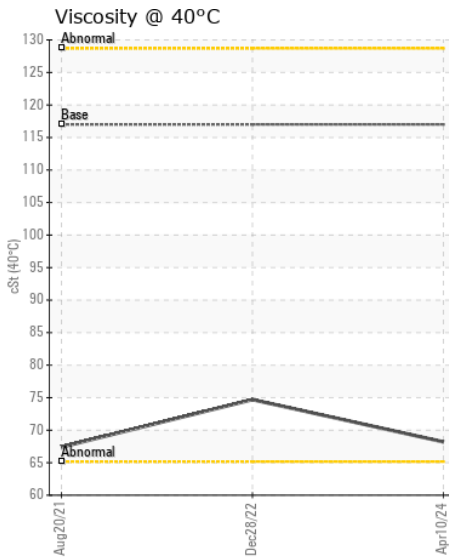
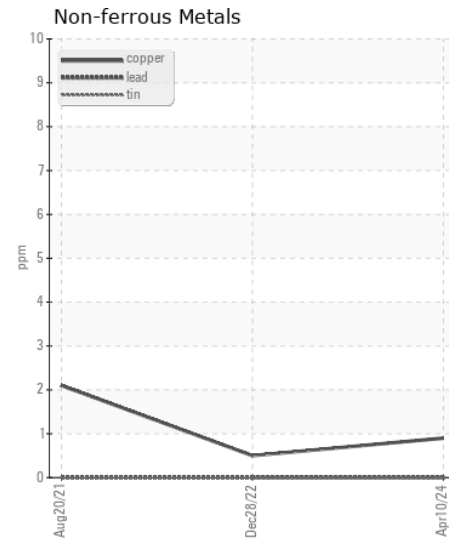
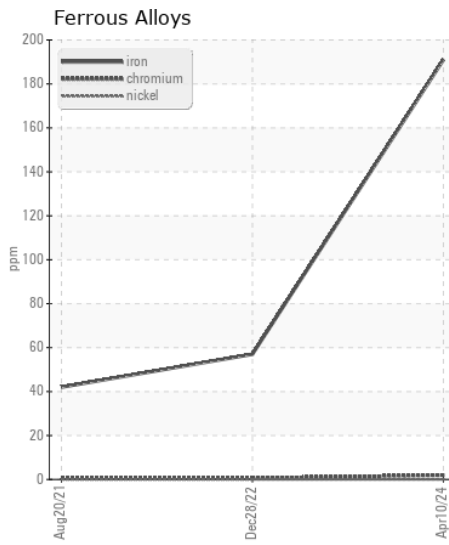
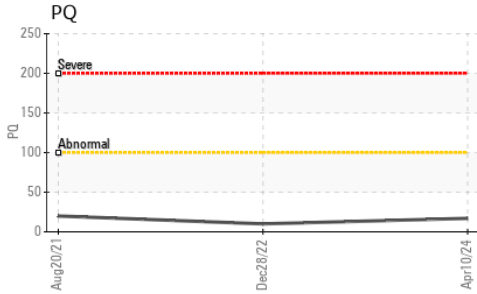
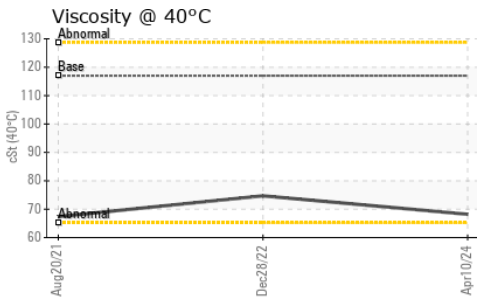
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>75	12	9	17
Potassium	ppm	ASTM D5185m	>20	3	2	2
Water		WC Method	>0.2	NEG	NEG	NEG
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	>0.2	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		<1	<1	4
Boron	ppm	ASTM D5185m		327	113	78
Barium	ppm	ASTM D5185m		<1	2	5
Molybdenum	ppm	ASTM D5185m		250	244	110
Manganese	ppm	ASTM D5185m		2	<1	3
Magnesium	ppm	ASTM D5185m		720	703	14
Calcium	ppm	ASTM D5185m		1614	1562	4248
Phosphorus	ppm	ASTM D5185m		1090	915	1173
Zinc	ppm	ASTM D5185m		1103	1049	1339
Sulfur	ppm	ASTM D5185m		4052	4239	7445
Visc @ 40°C	cSt	ASTM D445	117	68.2	74.7	67.4



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0209226 **Received** : 10 Apr 2024
Lab Number : 06145390 **Tested** : 14 Apr 2024
Unique Number : 10970198 **Diagnosed** : 14 Apr 2024 - Don Baldrige
Test Package : CONST (Additional Tests: PQ)

JRE - GARNER
 4161 AUBURN CHURCH RD
 GARNER, NC
 US 27529

Contact: RALEIGH SHOP
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To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - 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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