



OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
JOHN DEERE JOHN DEERE 8370
 Component
Diesel Engine
 Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- GAL)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		KL0011991	---	---
Sample Date		Client Info		20 May 2024	---	---
Machine Age	hrs	Client Info		4975	---	---
Oil Age	hrs	Client Info		165	---	---
Filter Age	hrs	Client Info		165	---	---
Oil Changed		Client Info		Not Chngd	---	---
Filter Changed		Client Info		Not Chngd	---	---
Sample Status				ABNORMAL	---	---

WEAR

Valve wear is indicated.

Iron	ppm	ASTM D5185m	>51	33	---	---
Chromium	ppm	ASTM D5185m	>11	1	---	---
Nickel	ppm	ASTM D5185m	>5	▲ 13	---	---
Titanium	ppm	ASTM D5185m		<1	---	---
Silver	ppm	ASTM D5185m	>3	<1	---	---
Aluminum	ppm	ASTM D5185m	>31	3	---	---
Lead	ppm	ASTM D5185m	>26	<1	---	---
Copper	ppm	ASTM D5185m	>26	1	---	---
Tin	ppm	ASTM D5185m	>4	0	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

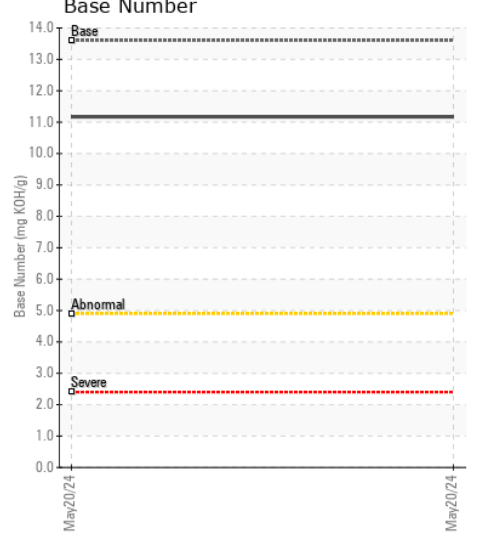
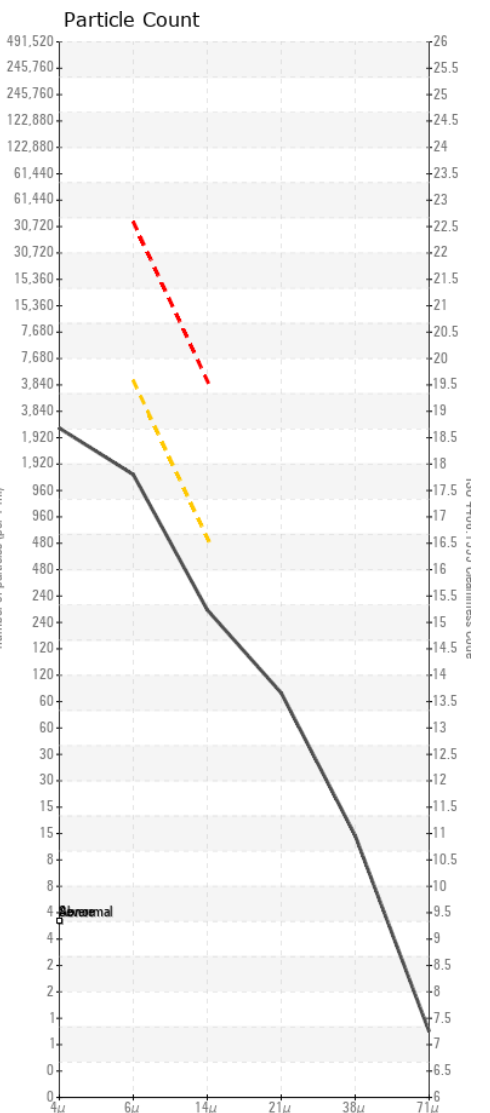
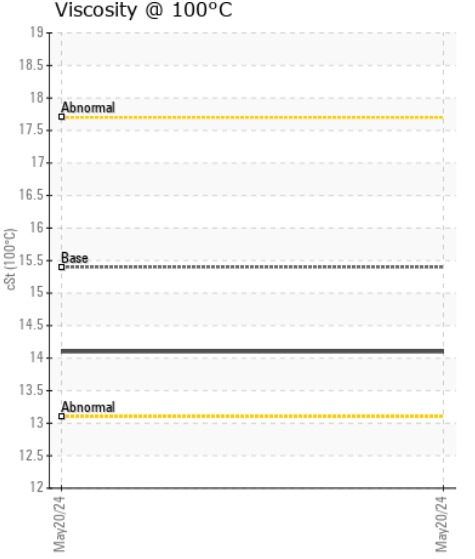
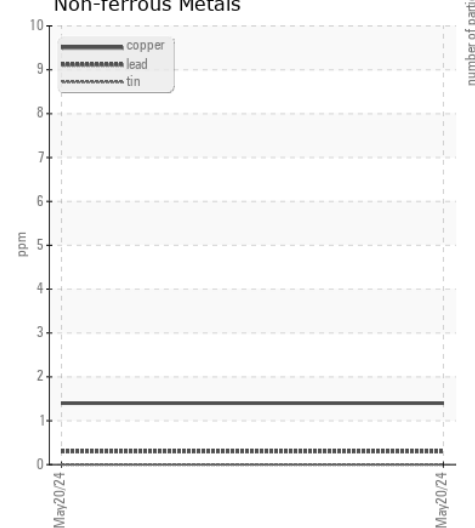
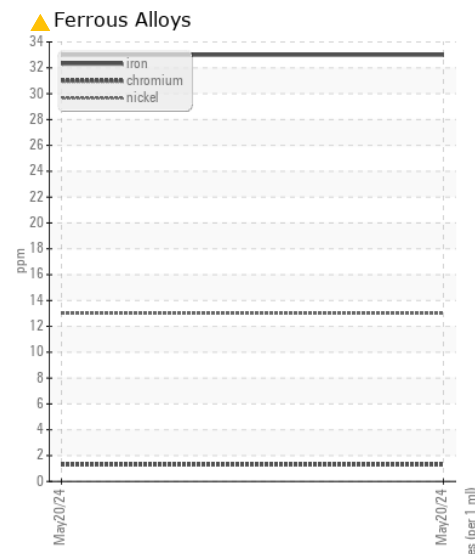
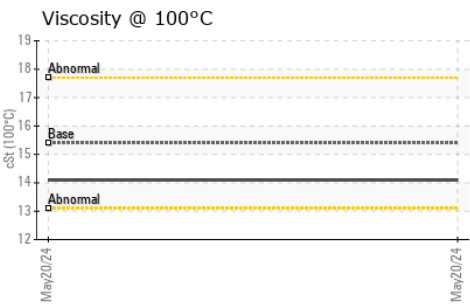
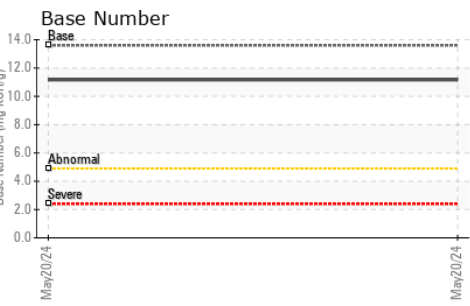
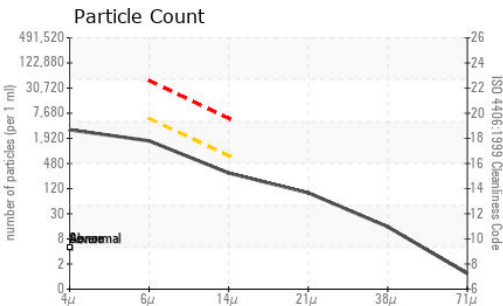
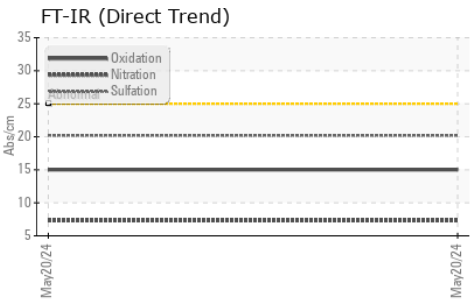
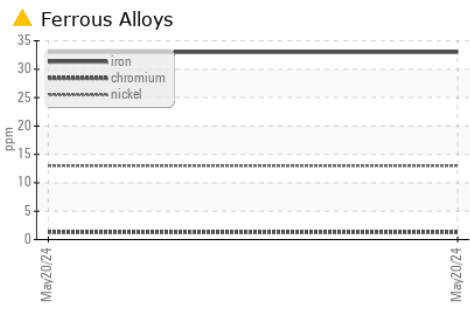
There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

Silicon	ppm	ASTM D5185m	>22	19	---	---
Potassium	ppm	ASTM D5185m	>20	3	---	---
Fuel		WC Method	>2.1	<1.0	---	---
Water		WC Method	>0.21	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	*ASTM D7844	>3	0.2	---	---
Nitration	Abs/cm	*ASTM D7624	>20	7.3	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.2	---	---
Particles >4µm		ASTM D7647		2688	---	---
Particles >6µm		ASTM D7647	>5000	1464	---	---
Particles >14µm		ASTM D7647	>640	249	---	---
Particles >21µm		ASTM D7647	>160	84	---	---
Particles >38µm		ASTM D7647	>40	13	---	---
Particles >71µm		ASTM D7647	>10	1	---	---
Oil Cleanliness		ISO 4406 (c)	>19/16	18/15	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.21	NEG	---	---

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>31	0	---	---
Boron	ppm	ASTM D5185m		224	---	---
Barium	ppm	ASTM D5185m		0	---	---
Molybdenum	ppm	ASTM D5185m		226	---	---
Manganese	ppm	ASTM D5185m		<1	---	---
Magnesium	ppm	ASTM D5185m		729	---	---
Calcium	ppm	ASTM D5185m		1356	---	---
Phosphorus	ppm	ASTM D5185m		788	---	---
Zinc	ppm	ASTM D5185m		944	---	---
Sulfur	ppm	ASTM D5185m		2890	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.0	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	11.17	---	---
Visc @ 100°C	cSt	ASTM D445	15.4	14.1	---	---



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KL0011991 **Received** : 28 May 2024
Lab Number : 06192992 **Tested** : 31 May 2024
Unique Number : 11049744 **Diagnosed** : 31 May 2024 - Jonathan Hester
Test Package : MOB 2 (Additional Tests: PrtCount)

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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)