



WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
JOHN DEERE 950K C074920 (S/N 1T0950KPKHF317769)

Component
Diesel Engine

Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. 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		JR0218914	JR0068267	JR0013525
Sample Date		Client Info		18 Jun 2024	19 Nov 2020	08 Nov 2019
Machine Age	hrs	Client Info		6116	3819	2460
Oil Age	hrs	Client Info		0	0	460
Filter Age	hrs	Client Info		0	0	460
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

Cylinder, crank, or cam shaft wear is indicated. All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	▲ 111	43	49
Chromium	ppm	ASTM D5185m	>11	2	1	1
Nickel	ppm	ASTM D5185m	>5	<1	2	4
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>3	0	<1	0
Aluminum	ppm	ASTM D5185m	>31	5	2	7
Lead	ppm	ASTM D5185m	>26	0	1	<1
Copper	ppm	ASTM D5185m	>26	6	4	10
Tin	ppm	ASTM D5185m	>4	0	1	3
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

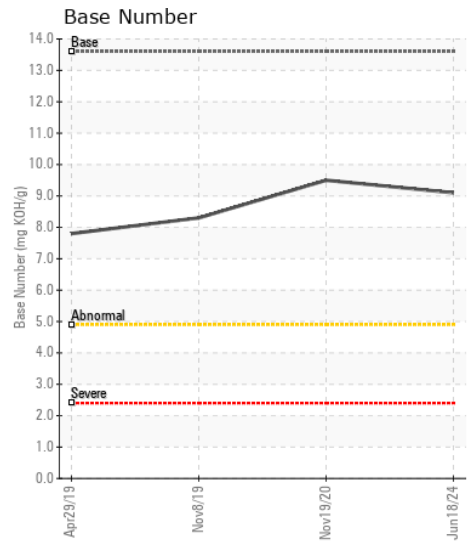
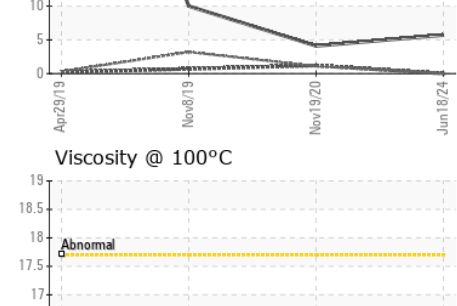
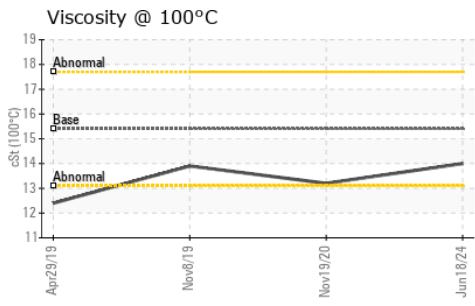
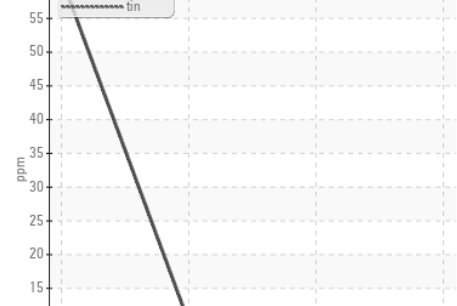
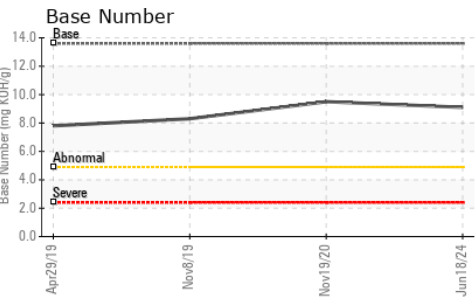
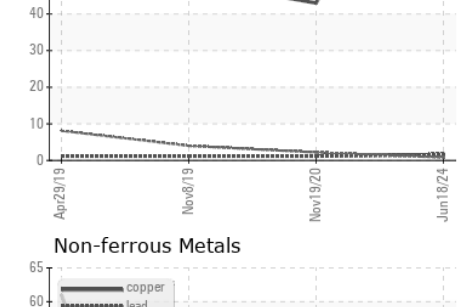
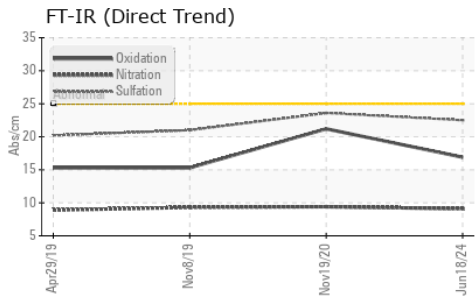
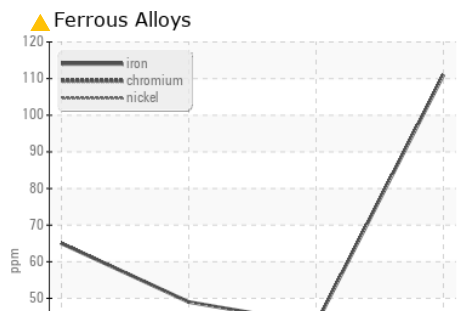
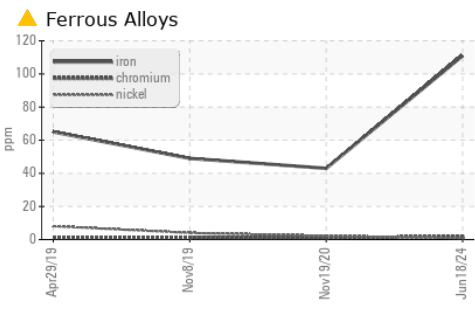
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>22	8	7	6
Potassium	ppm	ASTM D5185m	>20	<1	1	2
Fuel		WC Method	>2.1	<1.0	<1.0	<1.0
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.9	0.5	0.5
Nitration	Abs/cm	*ASTM D7624	>20	9.1	9.4	9.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.5	23.6	21
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	>0.21	NEG	NEG	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	3	4	2
Boron	ppm	ASTM D5185m		52	25	108
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		136	62	182
Manganese	ppm	ASTM D5185m		1	<1	<1
Magnesium	ppm	ASTM D5185m		702	498	650
Calcium	ppm	ASTM D5185m		1672	1722	1555
Phosphorus	ppm	ASTM D5185m		1056	882	862
Zinc	ppm	ASTM D5185m		1301	1101	994
Sulfur	ppm	ASTM D5185m		3571	2188	1252
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.9	21.2	15.3
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	9.1	9.5	8.3
Visc @ 100°C	cSt	ASTM D445	15.4	14.0	13.2	13.9



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0218914 **Received** : 24 Jun 2024
Lab Number : 06218034 **Tested** : 25 Jun 2024
Unique Number : 11096231 **Diagnosed** : 25 Jun 2024 - Don Baldrige
Test Package : CONST (Additional Tests: TBN)

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Certificate L2367
 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)