



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area

[46123]

Machine Id

HITACHI 350LC-6 1FFDDR70CKF940744

Component

Diesel Engine

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		JR0210967	JR0183731	JR0157402
Sample Date		Client Info		17 Apr 2024	07 Sep 2023	20 Jan 2023
Machine Age	hrs	Client Info		3936	3457	2943
Oil Age	hrs	Client Info		479	514	506
Filter Age	hrs	Client Info		0	514	506
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	24	25	21
Chromium	ppm	ASTM D5185m	>20	1	2	1
Nickel	ppm	ASTM D5185m	>4	0	<1	0
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	20	17	15
Lead	ppm	ASTM D5185m	>40	0	1	<1
Copper	ppm	ASTM D5185m	>330	3	2	2
Tin	ppm	ASTM D5185m	>15	<1	1	<1
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

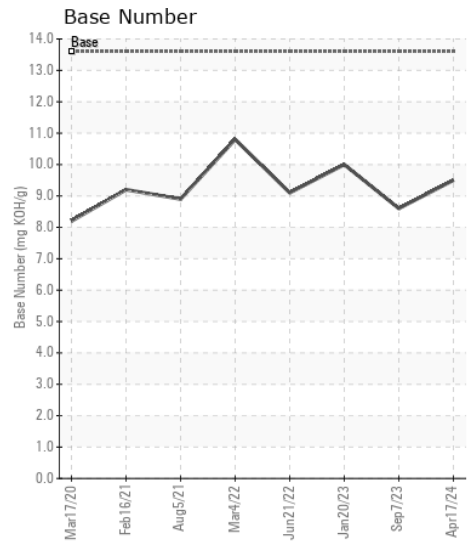
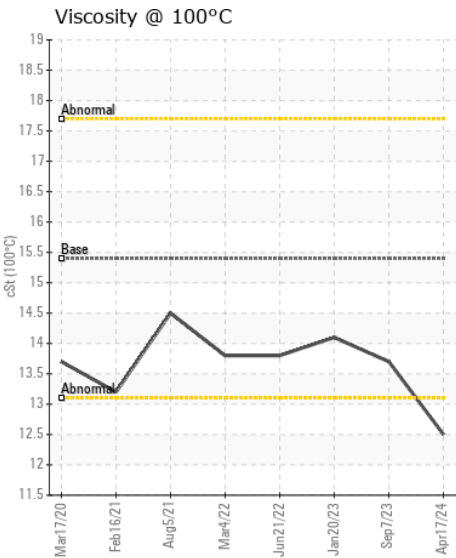
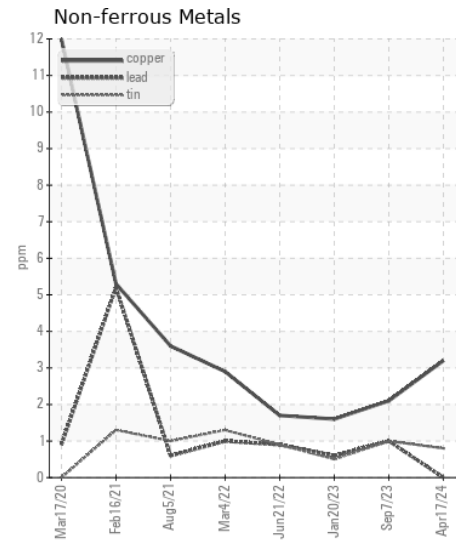
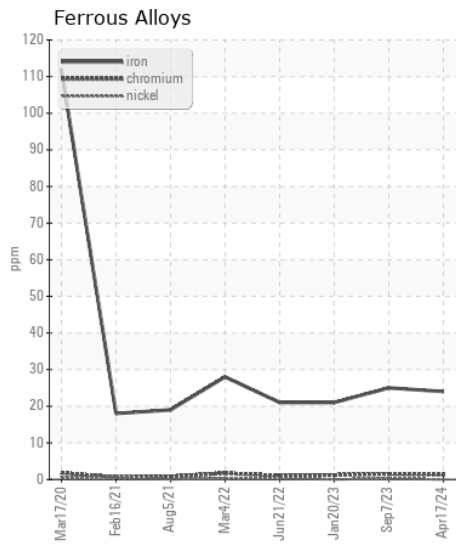
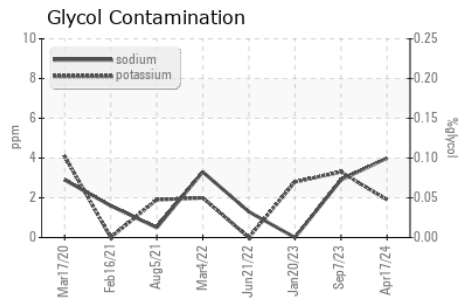
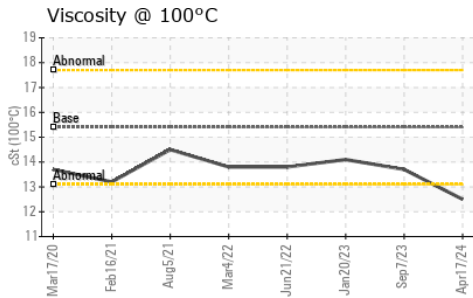
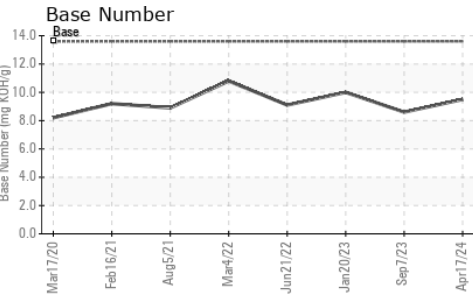
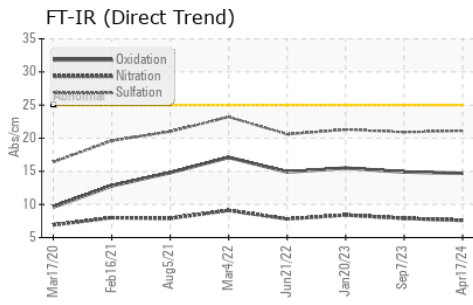
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	25	▲ 28	20
Potassium	ppm	ASTM D5185m	>20	2	3	3
Fuel	%	ASTM D3524	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	*ASTM D2982		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.4	0.4	0.5
Nitration	Abs/cm	*ASTM D7624	>20	7.6	7.9	8.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.1	20.9	21.3
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 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		4	3	0
Boron	ppm	ASTM D5185m		211	226	276
Barium	ppm	ASTM D5185m		2	0	2
Molybdenum	ppm	ASTM D5185m		194	244	262
Manganese	ppm	ASTM D5185m		2	<1	<1
Magnesium	ppm	ASTM D5185m		683	951	798
Calcium	ppm	ASTM D5185m		1917	1736	1432
Phosphorus	ppm	ASTM D5185m		968	971	889
Zinc	ppm	ASTM D5185m		1127	1210	1049
Sulfur	ppm	ASTM D5185m		3754	4040	2790
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.7	14.9	15.5
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	9.5	8.6	10.0
Visc @ 100°C	cSt	ASTM D445	15.4	12.5	13.7	14.1



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0210967
Lab Number : 06155650
Unique Number : 10991073
Test Package : CONST (Additional Tests: FuelDilution, GLYCOL, PercentFuel, TBN)

Received : 22 Apr 2024
Tested : 24 Apr 2024
Diagnosed : 24 Apr 2024 - Jonathan Hester

JRE - MANASSAS PARK
 9107 OWENS DRIVE
 MANASSAS PARK, VA
 US 20111

Contact: DON VEST
 dvest@jamesriverequipment.com

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)

T: (703)631-8500
 F: (703)631-4715