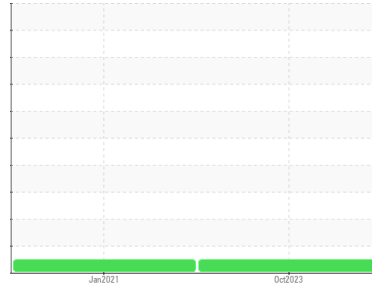


OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL


Area
[W47160]
Machine Id
JOHN DEERE 650H 1T0650HX939482
Component
Diesel Engine
Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- LTR)


DIAGNOSIS
Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

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.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		JR0179274	JR0067692	---
Sample Date	Client Info		11 Oct 2023	12 Jan 2021	---
Machine Age	hrs	Client Info	3321	2847	---
Oil Age	hrs	Client Info	0	0	---
Oil Changed	Client Info		Changed	Changed	---
Sample Status			NORMAL	NORMAL	---

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>2.1	<1.0	<1.0	---
Glycol	WC Method		NEG	NEG	---

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>51	29	82	---
Chromium	ppm	ASTM D5185m	>11	<1	2	---
Nickel	ppm	ASTM D5185m	>5	<1	2	---
Titanium	ppm	ASTM D5185m		0	<1	---
Silver	ppm	ASTM D5185m	>3	0	<1	---
Aluminum	ppm	ASTM D5185m	>31	5	8	---
Lead	ppm	ASTM D5185m	>26	20	33	---
Copper	ppm	ASTM D5185m	>26	4	25	---
Tin	ppm	ASTM D5185m	>4	<1	2	---
Antimony	ppm	ASTM D5185m		---	<1	---
Vanadium	ppm	ASTM D5185m		0	<1	---
Cadmium	ppm	ASTM D5185m		0	0	---

ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m		185	54	---
Barium	ppm	ASTM D5185m		0	0	---
Molybdenum	ppm	ASTM D5185m		229	38	---
Manganese	ppm	ASTM D5185m		<1	1	---
Magnesium	ppm	ASTM D5185m		775	344	---
Calcium	ppm	ASTM D5185m		1598	2077	---
Phosphorus	ppm	ASTM D5185m		861	939	---
Zinc	ppm	ASTM D5185m		1071	1240	---
Sulfur	ppm	ASTM D5185m		2880	2882	---

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>22	7	6	---
Sodium	ppm	ASTM D5185m	>31	2	6	---
Potassium	ppm	ASTM D5185m	>20	0	<1	---

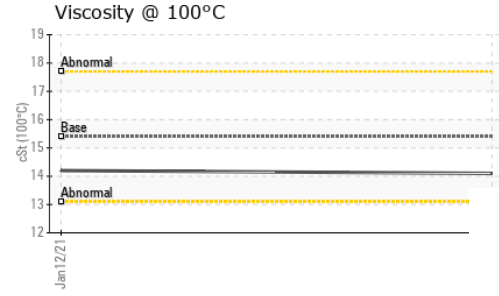
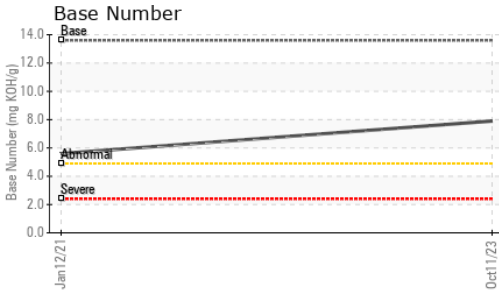
INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	>3	0.3	0.5	---
Nitration	Abs/cm	*ASTM D7624	>20	9.6	10.7	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	24.1	26.6	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.9	22	---
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	7.9	5.6	---

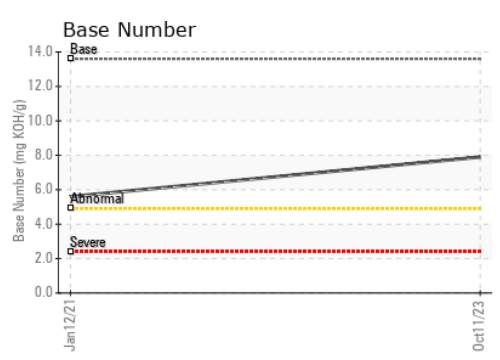
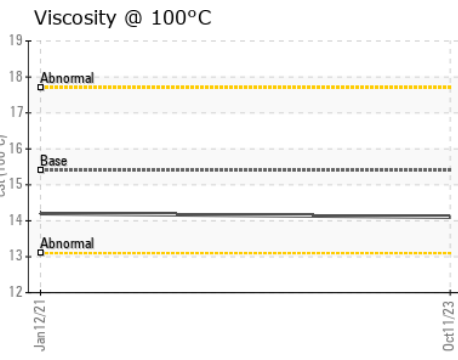
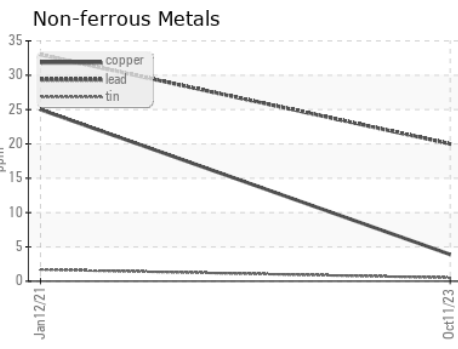
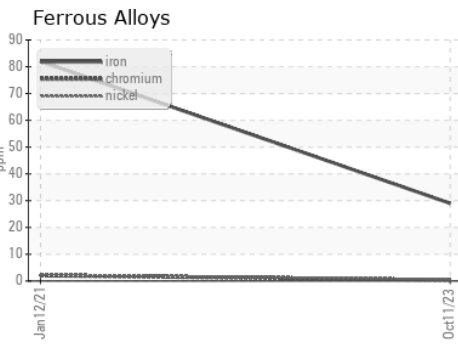
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
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	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	15.4	14.1	14.2	---

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0179274 **Received** : 18 Oct 2023
Lab Number : 05982259 **Diagnosed** : 19 Oct 2023
Unique Number : 10699554 **Diagnostician** : Wes Davis
Test Package : CONST (Additional Tests: TBN)

JRE - ASHLAND
 11047 LEADBETTER RD
 ASHLAND, VA
 US 23005
 Contact: DAVID ZIEG
 dzieg@jamesriverequipment.com
 T: (804)798-6001
 F: (804)798-0292

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)