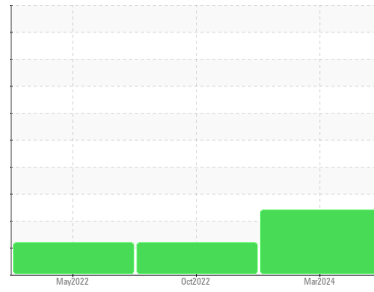




# OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Machine Id

## JOHN DEERE 627

Component

Diesel Engine

Fluid

DISEL ENGINE OIL SAE 15W40 (--- GAL)

### DIAGNOSIS

#### ▲ Recommendation

We advise that you check the fuel injection system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

#### Wear

Metal levels are typical for a new component breaking in.

#### ▲ Contamination

There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

#### ▲ Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

### SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>RW0005155</b>	RW0003815	RW0003684
Sample Date	Client Info		<b>11 Mar 2024</b>	05 Oct 2022	09 May 2022
Machine Age	hrs	Client Info	<b>780</b>	497	189
Oil Age	hrs	Client Info	<b>283</b>	308	189
Oil Changed	Client Info		<b>Changed</b>	Changed	Changed
Sample Status			<b>SEVERE</b>	ABNORMAL	ABNORMAL

### CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.21	<b>NEG</b>	NEG	NEG
Glycol	WC Method		<b>NEG</b>	NEG	NEG

### WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >51	<b>16</b>	18	23
Chromium	ppm	ASTM D5185m >11	<b>0</b>	<1	<1
Nickel	ppm	ASTM D5185m >5	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	<b>0</b>	0	<1
Silver	ppm	ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >31	<b>&lt;1</b>	<1	3
Lead	ppm	ASTM D5185m >26	<b>3</b>	5	6
Copper	ppm	ASTM D5185m >26	<b>67</b>	61	30
Tin	ppm	ASTM D5185m >4	<b>1</b>	4	6
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

### ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 250	<b>3</b>	18	233
Barium	ppm	ASTM D5185m 10	<b>0</b>	2	0
Molybdenum	ppm	ASTM D5185m 100	<b>61</b>	78	219
Manganese	ppm	ASTM D5185m	<b>0</b>	2	8
Magnesium	ppm	ASTM D5185m 450	<b>994</b>	870	802
Calcium	ppm	ASTM D5185m 3000	<b>1283</b>	1194	1319
Phosphorus	ppm	ASTM D5185m 1150	<b>1142</b>	1044	942
Zinc	ppm	ASTM D5185m 1350	<b>1371</b>	1243	1115
Sulfur	ppm	ASTM D5185m 4250	<b>3963</b>	3534	2913

### CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >22	<b>2</b>	4	11
Sodium	ppm	ASTM D5185m >158	<b>3</b>	2	6
Potassium	ppm	ASTM D5185m >20	<b>6</b>	2	5
Fuel	%	ASTM D3524 >2.1	<b>▲ 3.4</b>	▲ 2.6	▲ 4.0

### INFRA-RED

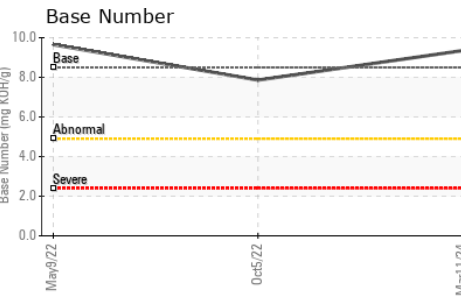
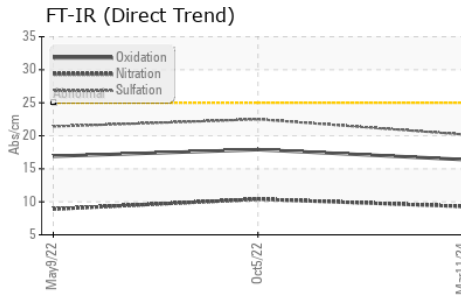
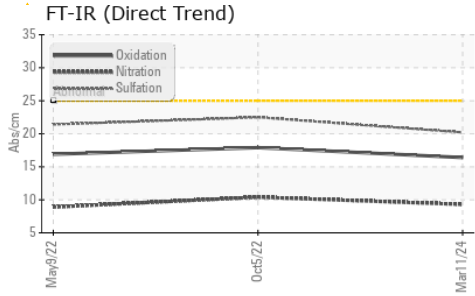
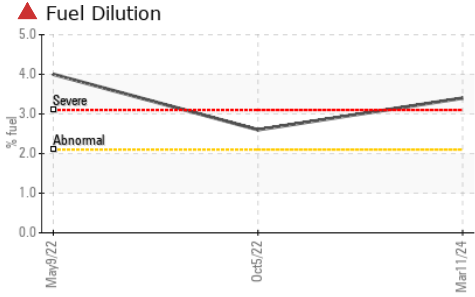
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.4</b>	0.4	0.1
Nitration	Abs/cm	*ASTM D7624 >20	<b>9.3</b>	10.4	8.9
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>20.2</b>	22.5	21.4

### FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>16.4</b>	17.9	16.9
Base Number (BN)	mg KOH/g	ASTM D2896 8.5	<b>9.35</b>	7.86	9.65



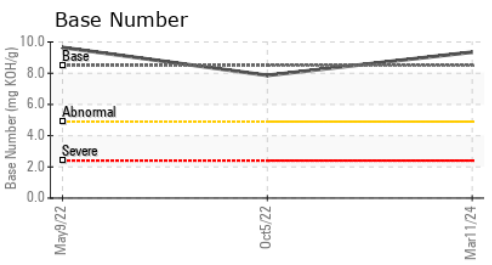
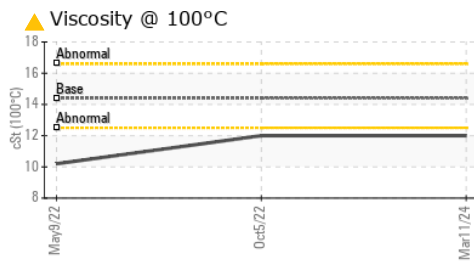
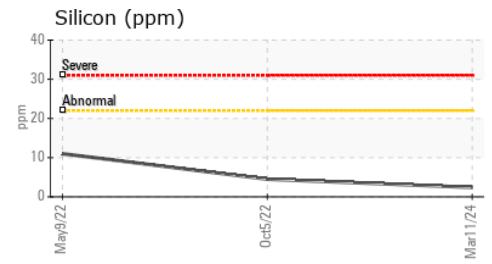
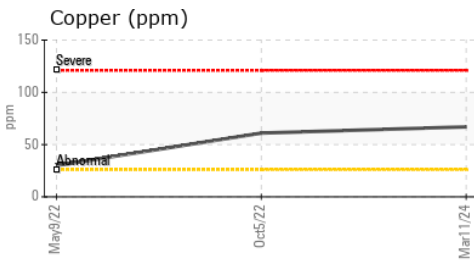
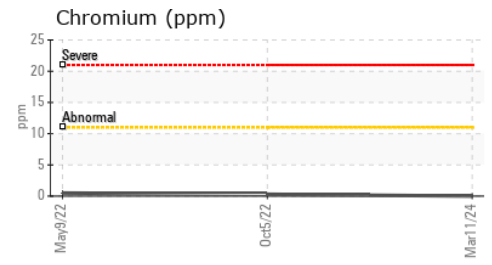
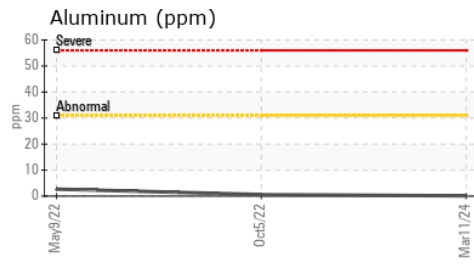
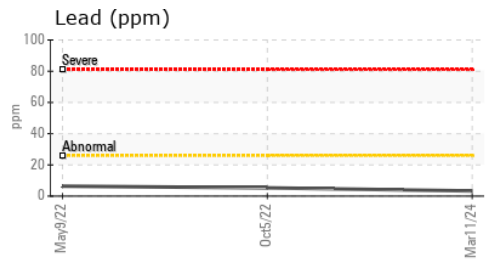
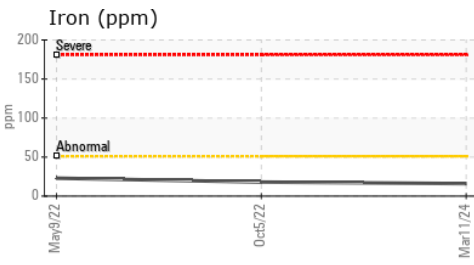
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.21	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14.4	▲ 12.0	▲ 12.0

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : RW0005155      **Received** : 11 Apr 2024  
**Lab Number** : 06146743      **Tested** : 17 Apr 2024  
**Unique Number** : 10976821      **Diagnosed** : 17 Apr 2024 - Wes Davis  
**Test Package** : MOB 2 ( Additional Tests: PercentFuel )

**HALLACK CONTRACTING, INC.**  
 4223 W POLK  
 HART, MI  
 US 49420  
 Contact: DAN HALLACK KARL BUTCHER  
 shop@hallackcontracting.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)