

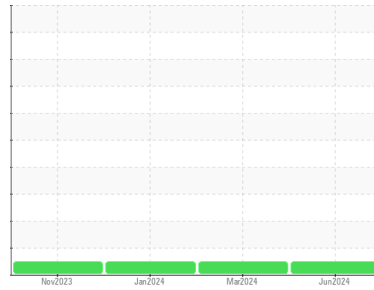


# OIL ANALYSIS REPORT



Machine Id  
**JOHN DEERE 770GP - CLATONIA 32164 (S/N 1DW770GPKLF708285)**  
 Component  
**Diesel Engine**  
 Fluid  
**AMERIGUARD 10W30 (30 QTS)**

### Sample Rating Trend



**NORMAL**



### 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		<b>SBP0007477</b>	SBP0006753	SBP0006407
Sample Date	Client Info		<b>07 Jun 2024</b>	27 Mar 2024	31 Jan 2024
Machine Age	hrs	Client Info	<b>3875</b>	3628	3376
Oil Age	hrs	Client Info	<b>247</b>	252	386
Oil Changed	Client Info		<b>Changed</b>	Changed	Changed
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

### CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>2.1	<b>&lt;1.0</b>	<1.0	<1.0
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>4</b>	6	10
Chromium	ppm	ASTM D5185m	>11	<b>&lt;1</b>	0	<1
Nickel	ppm	ASTM D5185m	>5	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>31	<b>2</b>	<1	1
Lead	ppm	ASTM D5185m	>26	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m	>26	<b>&lt;1</b>	0	1
Tin	ppm	ASTM D5185m	>4	<b>0</b>	0	<1
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		<b>11</b>	11	27
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>58</b>	62	47
Manganese	ppm	ASTM D5185m		<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185m		<b>921</b>	973	728
Calcium	ppm	ASTM D5185m		<b>1109</b>	1242	1422
Phosphorus	ppm	ASTM D5185m		<b>940</b>	1051	887
Zinc	ppm	ASTM D5185m		<b>1290</b>	1239	1081
Sulfur	ppm	ASTM D5185m		<b>3112</b>	3744	2826

### CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>22	<b>2</b>	2	3
Sodium	ppm	ASTM D5185m	>31	<b>&lt;1</b>	1	1
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	0	<1

### INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	>3	<b>0.2</b>	0.1	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>5.5</b>	5.4	5.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>18.4</b>	18.5	20.5

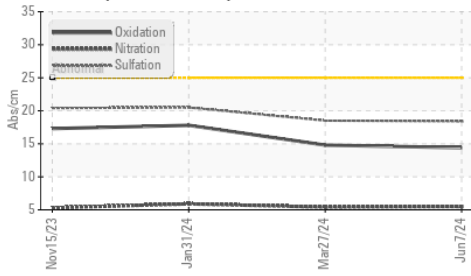
### FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>14.4</b>	14.8	17.8
Base Number (BN)	mg KOH/g	ASTM D2896		<b>9.7</b>	9.9	10.2

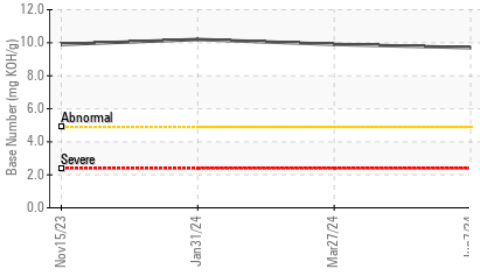


# OIL ANALYSIS REPORT

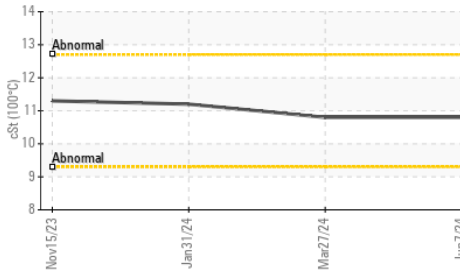
FT-IR (Direct Trend)



Base Number



Viscosity @ 100°C

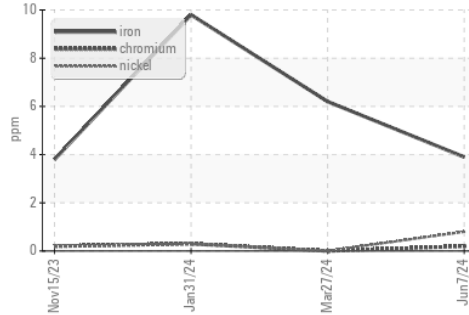


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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

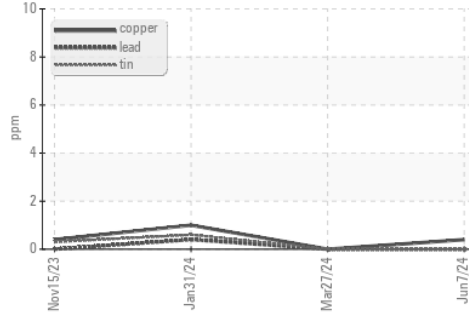
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	10.8	10.8	11.2

## GRAPHS

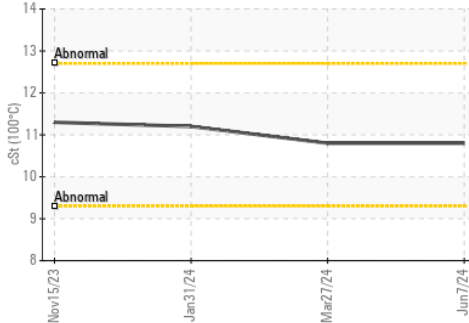
Ferrous Alloys



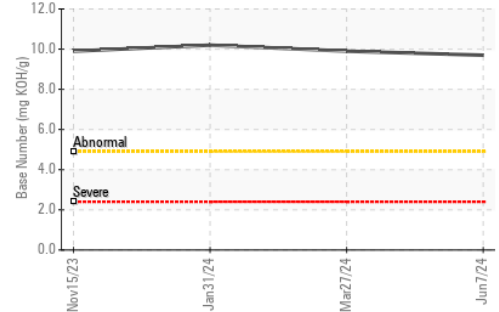
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : SBP0007477  
**Lab Number** : 06221025  
**Unique Number** : 11099222  
**Test Package** : FLEET

**Received** : 26 Jun 2024  
**Tested** : 27 Jun 2024  
**Diagnosed** : 27 Jun 2024 - Wes Davis

**GAGE COUNTY HIGHWAY DEPARTMENT**  
 823 SOUTH 8TH ST  
 BEATRICE, NE  
 US 68310  
 Contact: MARK KUHNKE  
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 T: (402)223-1395  
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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)