



WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Area

**[05W44186]**

Machine Id

**SENNEBOGEN 821M 821.0.2814**

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		<b>JR0199342</b>	JR0192210	JR0187903
Sample Date		Client Info		<b>05 Jan 2024</b>	06 Nov 2023	26 Sep 2023
Machine Age	hrs	Client Info		<b>3489</b>	3022	2732
Oil Age	hrs	Client Info		<b>467</b>	290	737
Filter Age	hrs	Client Info		<b>467</b>	290	737
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	ATTENTION	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>15</b>	14	30
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	1
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>3</b>	2	2
Lead	ppm	ASTM D5185m	>40	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m	>330	<b>2</b>	3	4
Tin	ppm	ASTM D5185m	>15	<b>0</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

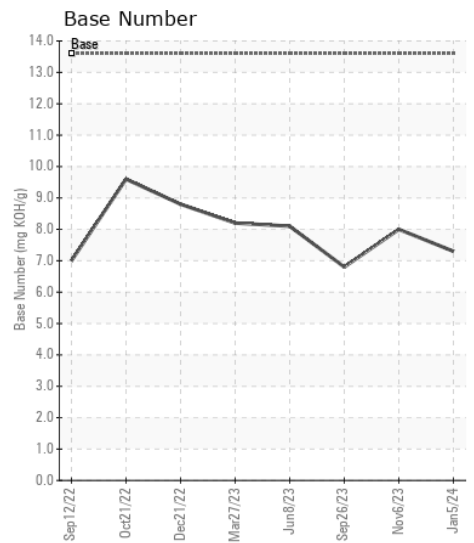
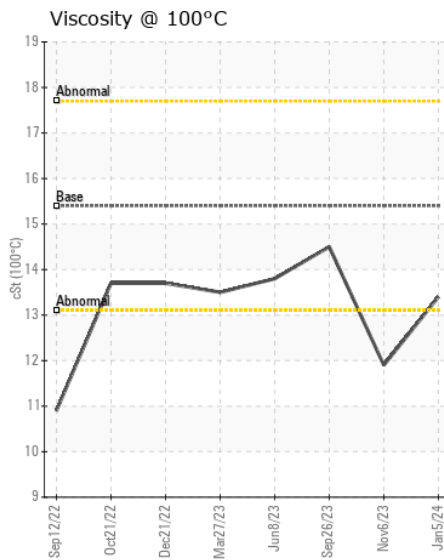
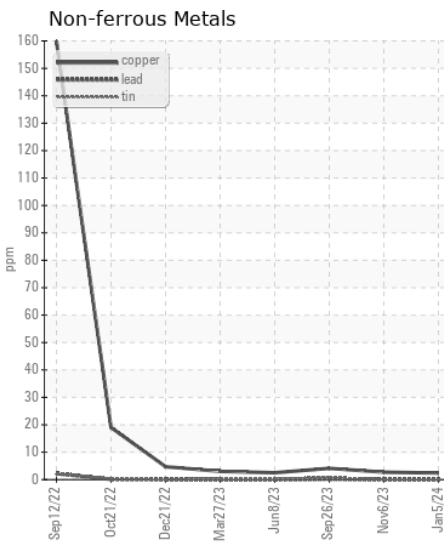
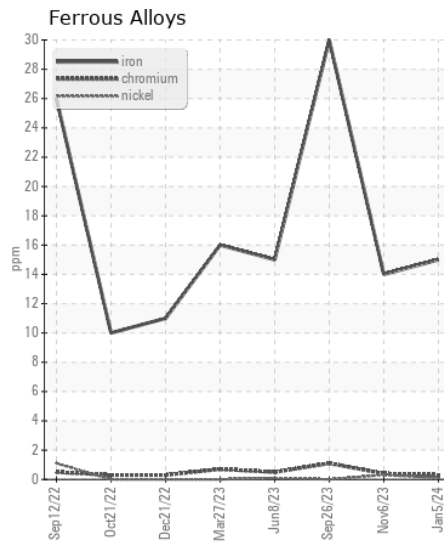
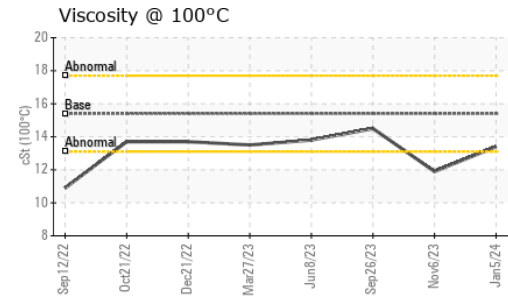
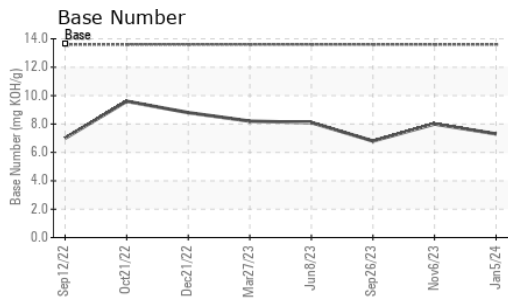
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>6</b>	6	9
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	3	6
Fuel		WC Method	>5	<b>&lt;1.0</b>	0.2	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.2</b>	0.2	0.4
Nitration	Abs/cm	*ASTM D7624	>20	<b>10.6</b>	8.7	10.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>27.1</b>	23.6	28.5
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	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		<b>0</b>	0	3
Boron	ppm	ASTM D5185m		<b>176</b>	134	72
Barium	ppm	ASTM D5185m		<b>0</b>	5	0
Molybdenum	ppm	ASTM D5185m		<b>178</b>	168	279
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	2
Magnesium	ppm	ASTM D5185m		<b>638</b>	531	876
Calcium	ppm	ASTM D5185m		<b>1741</b>	2363	1609
Phosphorus	ppm	ASTM D5185m		<b>1239</b>	1025	932
Zinc	ppm	ASTM D5185m		<b>1049</b>	1197	1198
Sulfur	ppm	ASTM D5185m		<b>6011</b>	2968	3034
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>23.5</b>	18.2	25.9
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	<b>7.3</b>	8.0	6.8
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.4</b>	▲ 11.9	14.5



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0199342 **Received** : 09 Jan 2024  
**Lab Number** : 06055724 **Diagnosed** : 10 Jan 2024  
**Unique Number** : 10821673 **Diagnostician** : Jonathan Hester  
**Test Package** : CONST ( Additional Tests: TBN )

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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)