



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
JOHN DEERE 210G 1FF210GXENF530621

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		JR0189062	JR0188778	JR0171578
Sample Date		Client Info		05 Jan 2024	21 Sep 2023	08 Jun 2023
Machine Age	hrs	Client Info		1721	1710	532
Oil Age	hrs	Client Info		11	1178	532
Filter Age	hrs	Client Info		0	500	532
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	ABNORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	18	29	56
Chromium	ppm	ASTM D5185m	>11	<1	<1	1
Nickel	ppm	ASTM D5185m	>5	5	5	4
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>31	3	1	4
Lead	ppm	ASTM D5185m	>26	0	<1	4
Copper	ppm	ASTM D5185m	>26	13	▲ 62	▲ 425
Tin	ppm	ASTM D5185m	>4	<1	1	2
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

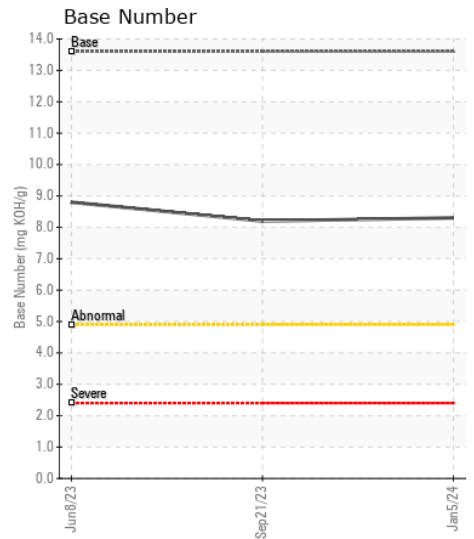
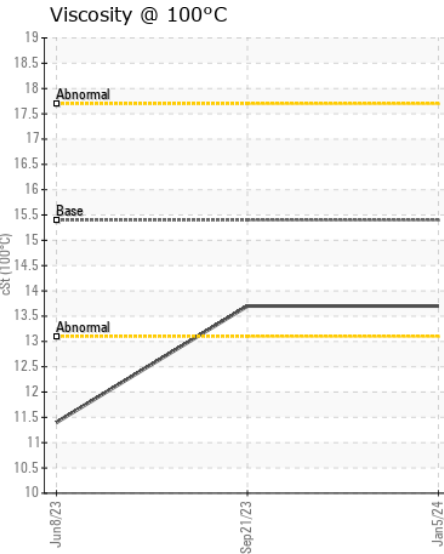
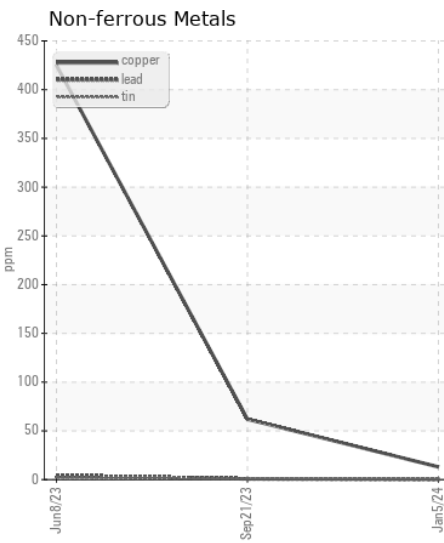
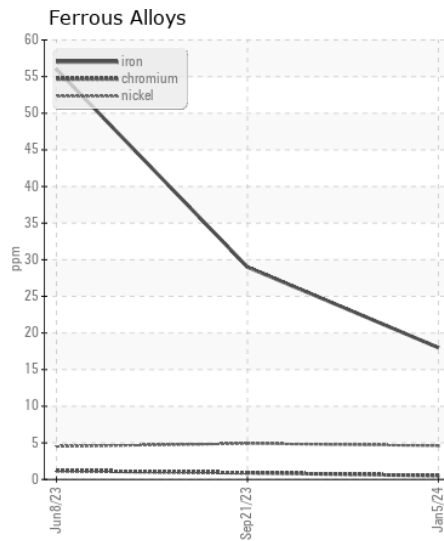
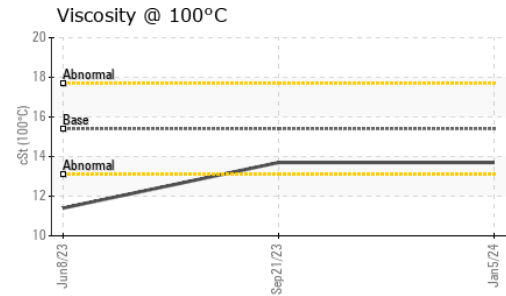
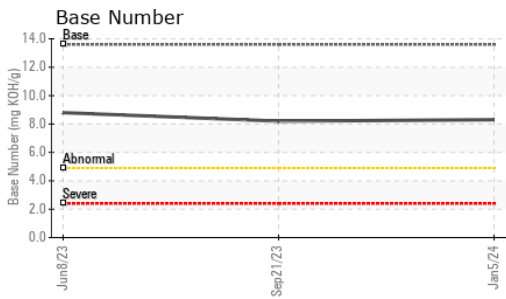
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>22	9	9	12
Potassium	ppm	ASTM D5185m	>20	1	2	4
Fuel		WC Method	>2.1	<1.0	<1.0	0.5
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.7	1	0.9
Nitration	Abs/cm	*ASTM D7624	>20	9.5	9.8	10.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.1	24.1	25.9
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	>0.21	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	>31	3	4	7
Boron	ppm	ASTM D5185m		169	114	161
Barium	ppm	ASTM D5185m		<1	0	0
Molybdenum	ppm	ASTM D5185m		240	214	229
Manganese	ppm	ASTM D5185m		<1	2	5
Magnesium	ppm	ASTM D5185m		786	751	800
Calcium	ppm	ASTM D5185m		1480	1662	1770
Phosphorus	ppm	ASTM D5185m		920	859	891
Zinc	ppm	ASTM D5185m		1112	1113	1141
Sulfur	ppm	ASTM D5185m		2826	3245	3357
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.6	18.7	21.5
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	8.3	8.2	8.8
Visc @ 100°C	cSt	ASTM D445	15.4	13.7	13.7	▲ 11.4



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0189062 **Received** : 10 Jan 2024
Lab Number : 06056536 **Diagnosed** : 11 Jan 2024
Unique Number : 10822485 **Diagnostician** : Don Baldrige
Test Package : CONST (Additional Tests: TBN)

CARLTON'S BACKHOE
 9550 STATESVILLE ROAD
 CHARLOTTE, NC
 US 28269
 Contact: LEO

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)

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