



WEAR	NORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	ATTENTION

Machine Id
JOHN DEERE CD150M 1GMBB1018ND075866

Component
Diesel Engine

Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- QTS)

RECOMMENDATION

We advise that you check for the source of the coolant leak. The oil change at the time of sampling has been noted. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0195827	JR0176375	JR0126577
Sample Date		Client Info		12 Jan 2024	25 Jun 2023	16 May 2022
Machine Age	hrs	Client Info		6096	5010	2319
Oil Age	hrs	Client Info		1086	5010	0
Filter Age	hrs	Client Info		0	5010	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				SEVERE	SEVERE	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	27	20	6
Chromium	ppm	ASTM D5185m	>11	0	0	<1
Nickel	ppm	ASTM D5185m	>5	0	<1	<1
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>3	1	<1	<1
Aluminum	ppm	ASTM D5185m	>31	4	2	2
Lead	ppm	ASTM D5185m	>26	0	<1	<1
Copper	ppm	ASTM D5185m	>26	18	12	▲ 60
Tin	ppm	ASTM D5185m	>4	<1	<1	0
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

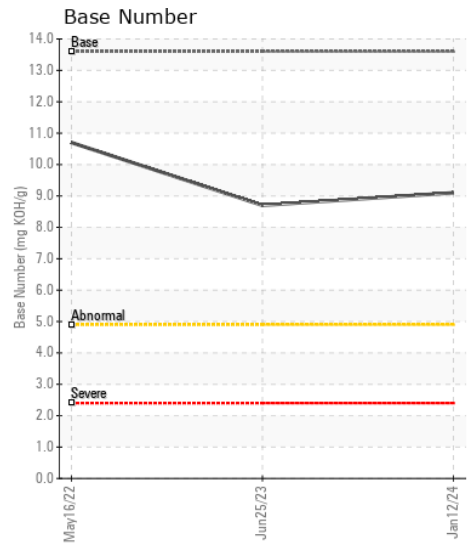
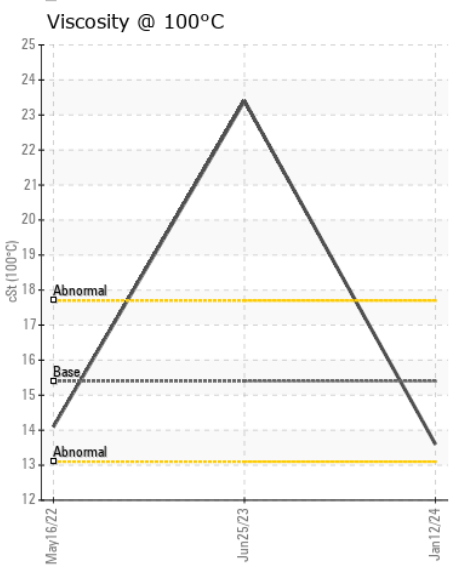
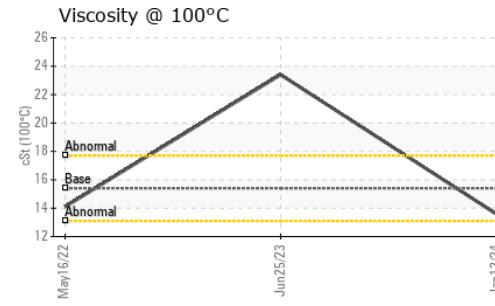
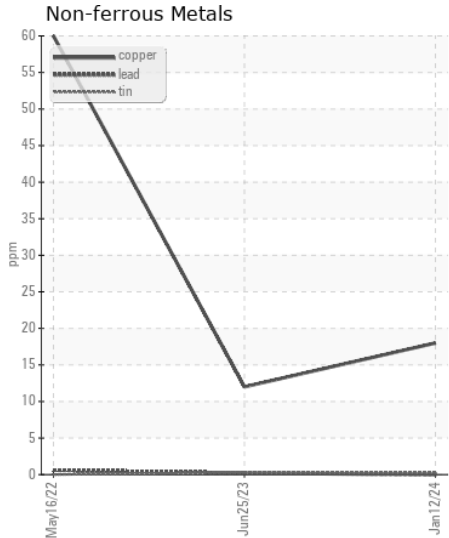
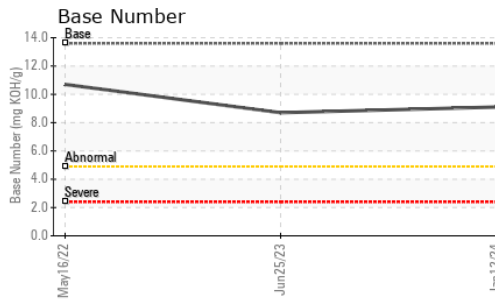
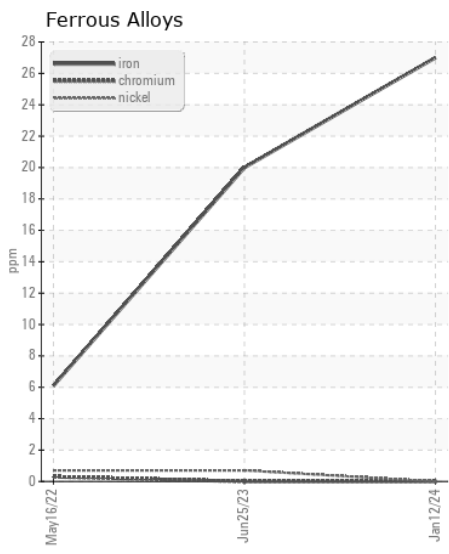
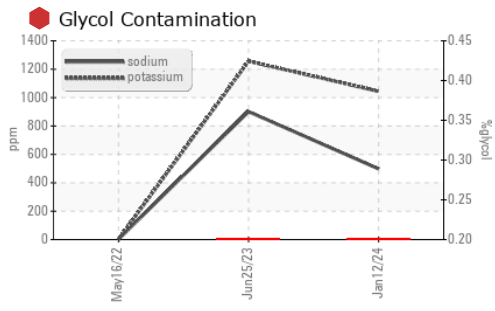
Test for glycol is positive. There is a high concentration of glycol present in the oil.

Silicon	ppm	ASTM D5185m	>22	8	7	7
Potassium	ppm	ASTM D5185m	>20	▲ 1044	▲ 1256	2
Fuel		WC Method	>2.1	<1.0	<1.0	<1.0
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol	%	*ASTM D2982		● 0.20	● 0.20	NEG
Soot %	%	*ASTM D7844	>3	0.1	0.9	0.1
Nitration	Abs/cm	*ASTM D7624	>20	9.9	8.3	6.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.1	20.7	22.4
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

Additive levels indicate the addition of a different brand, or type of oil. 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.

Sodium	ppm	ASTM D5185m	>31	▲ 498	▲ 901	2
Boron	ppm	ASTM D5185m		▲ 22	17	242
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		187	85	203
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		▲ 422	78	765
Calcium	ppm	ASTM D5185m		1317	1494	1402
Phosphorus	ppm	ASTM D5185m		762	785	857
Zinc	ppm	ASTM D5185m		956	927	1088
Sulfur	ppm	ASTM D5185m		2995	3155	3016
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.8	15.2	17.2
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	9.1	8.7	10.7
Visc @ 100°C	cSt	ASTM D445	15.4	13.6	▲ 23.4	14.1



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0195827 **Received** : 16 Jan 2024
Lab Number : 06060852 **Diagnosed** : 17 Jan 2024
Unique Number : 10832234 **Diagnostician** : Wes Davis
Test Package : CONST (Additional Tests: TBN)

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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)