



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION

Machine Id
JOHN DEERE 470G 1FF470GXLJF236036
 Component
Diesel Engine
 Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (50 GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0208898	JR0200805	JR0185164
Sample Date		Client Info		20 May 2024	22 Feb 2024	28 Aug 2023
Machine Age	hrs	Client Info		5149	5149	4913
Oil Age	hrs	Client Info		5149	5149	1860
Filter Age	hrs	Client Info		0	0	1860
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ATTENTION	ABNORMAL	SEVERE

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	24	65	▲ 262
Chromium	ppm	ASTM D5185m	>11	1	1	4
Nickel	ppm	ASTM D5185m	>5	<1	<1	<1
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m	>3	<1	0	0
Aluminum	ppm	ASTM D5185m	>31	7	8	13
Lead	ppm	ASTM D5185m	>26	16	▲ 48	▲ 379
Copper	ppm	ASTM D5185m	>26	11	16	▲ 58
Tin	ppm	ASTM D5185m	>4	3	3	▲ 10
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

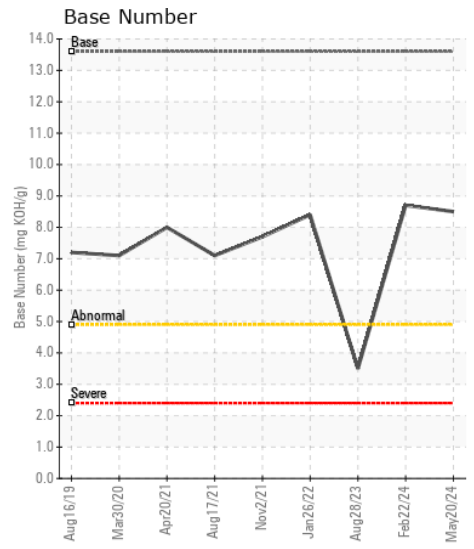
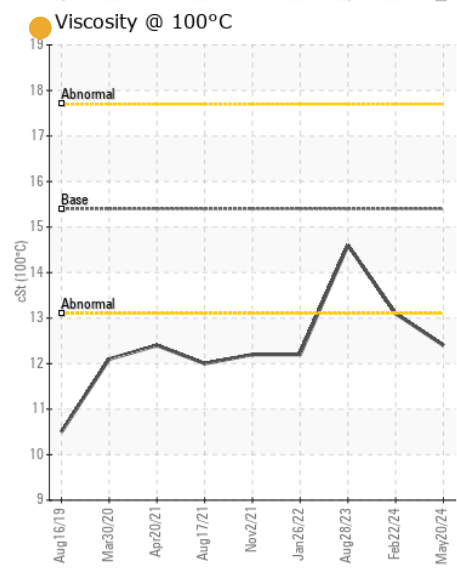
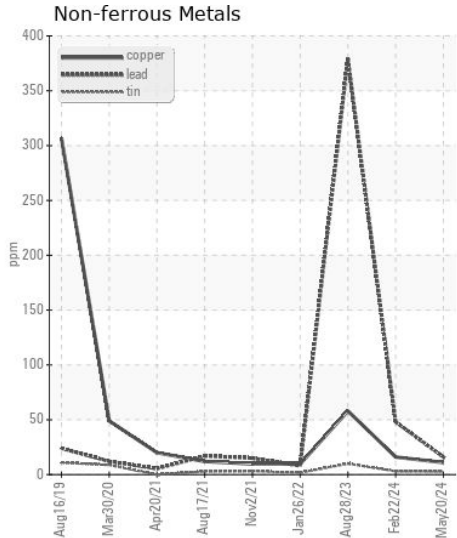
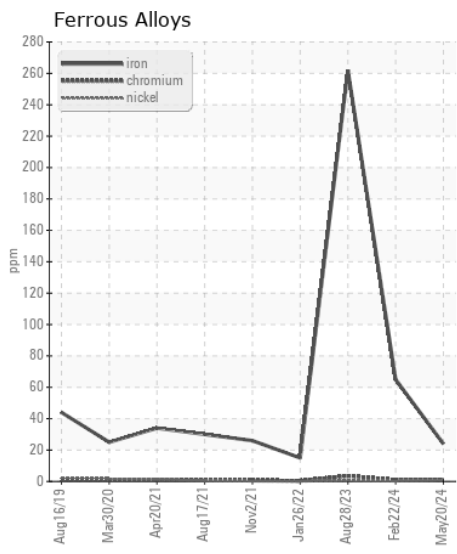
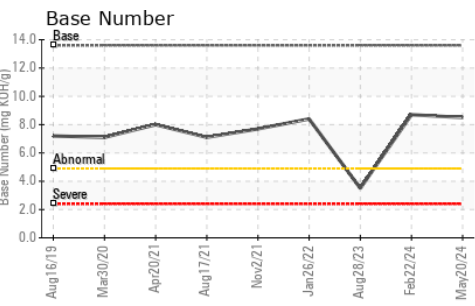
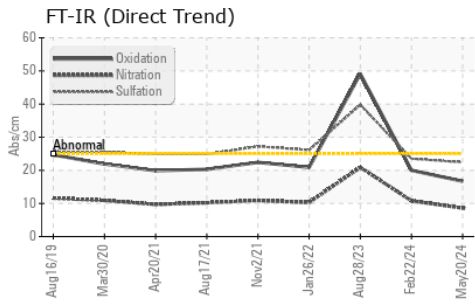
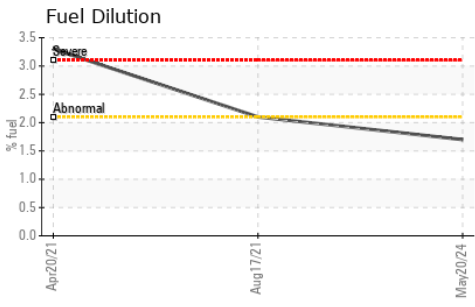
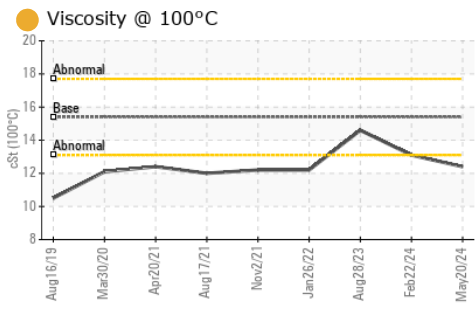
Fuel content negligible. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>22	11	10	19
Potassium	ppm	ASTM D5185m	>20	5	5	9
Fuel	%	ASTM D3524	>2.1	1.7	<1.0	<1.0
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.5	0.5	2
Nitration	Abs/cm	*ASTM D7624	>20	8.6	10.8	20.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.4	23.5	39.8
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 oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Sodium	ppm	ASTM D5185m	>31	14	9	20
Boron	ppm	ASTM D5185m		131	177	30
Barium	ppm	ASTM D5185m		0	<1	0
Molybdenum	ppm	ASTM D5185m		241	240	216
Manganese	ppm	ASTM D5185m		<1	1	3
Magnesium	ppm	ASTM D5185m		783	863	829
Calcium	ppm	ASTM D5185m		1515	1494	1637
Phosphorus	ppm	ASTM D5185m		917	878	909
Zinc	ppm	ASTM D5185m		1088	1080	1171
Sulfur	ppm	ASTM D5185m		3186	3035	3366
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.7	20.0	49.1
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	8.5	8.7	▲ 3.5
Visc @ 100°C	cSt	ASTM D445	15.4	12.4	13.1	14.6



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0208898 **Received** : 21 May 2024
Lab Number : 06185939 **Tested** : 24 May 2024
Unique Number : 11042691 **Diagnosed** : 24 May 2024 - Don Baldrige
Test Package : CONST (Additional Tests: FuelDilution, PercentFuel, 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)