



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION



Area
Contracting
Machine Id
5606 5606
Component
Diesel Engine
Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (3 GAL)

RECOMMENDATION

No corrective action is recommended at this time. 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		WC0947933	WC0710635	WC0704082
Sample Date		Client Info		28 Jun 2024	20 Jun 2022	07 Jun 2022
Machine Age	hrs	Client Info		961	3	3
Oil Age	hrs	Client Info		961	3	3
Filter Age	hrs	Client Info		961	3	0
Oil Changed		Client Info		Changed	N/A	Not Changed
Filter Changed		Client Info		Changed	N/A	Not Changed
Sample Status				ATTENTION	ATTENTION	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	40	8	8
Chromium	ppm	ASTM D5185m	>11	<1	<1	0
Nickel	ppm	ASTM D5185m	>5	<1	0	0
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>3	<1	<1	1
Aluminum	ppm	ASTM D5185m	>31	8	4	4
Lead	ppm	ASTM D5185m	>26	10	2	1
Copper	ppm	ASTM D5185m	>26	17	5	5
Tin	ppm	ASTM D5185m	>4	3	<1	0
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

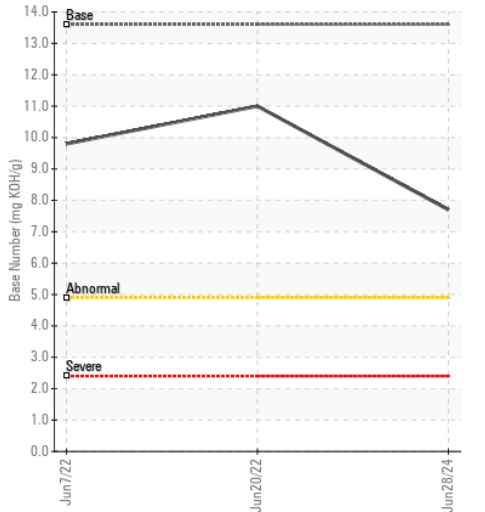
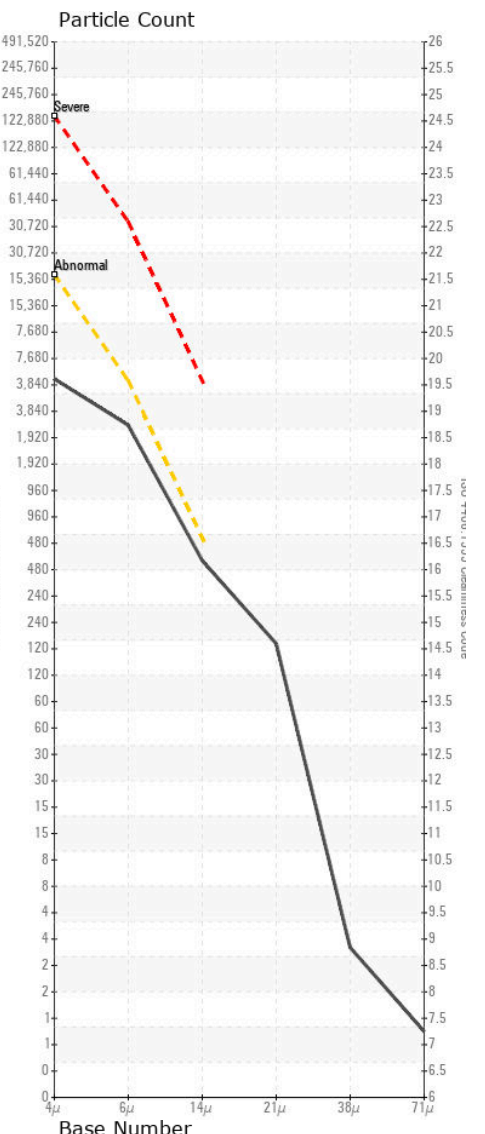
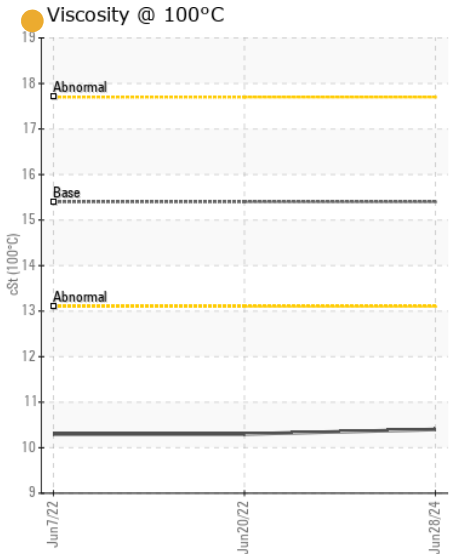
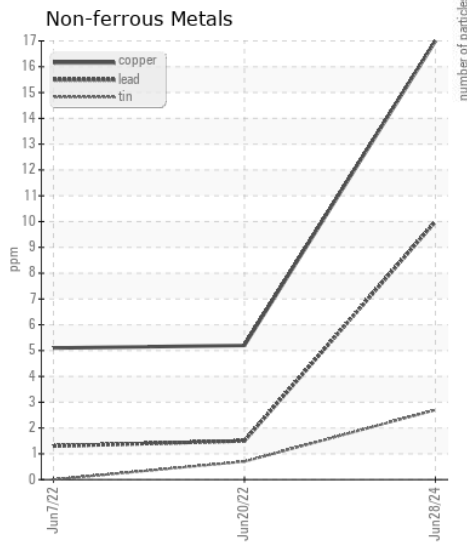
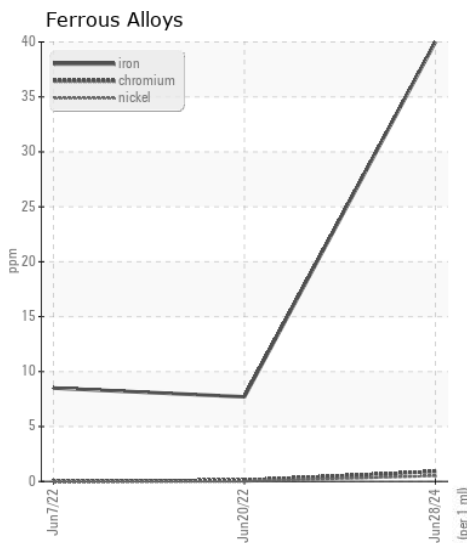
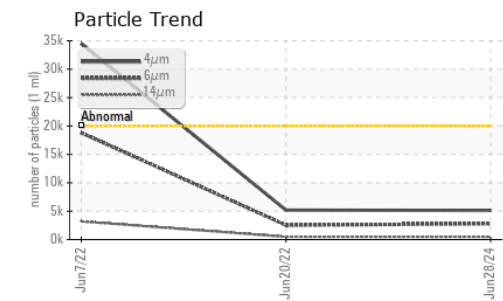
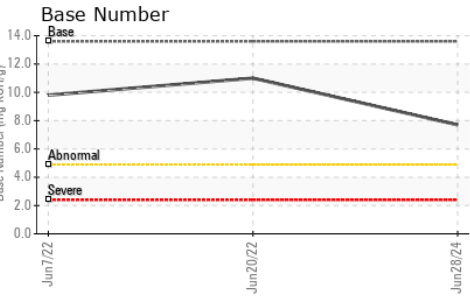
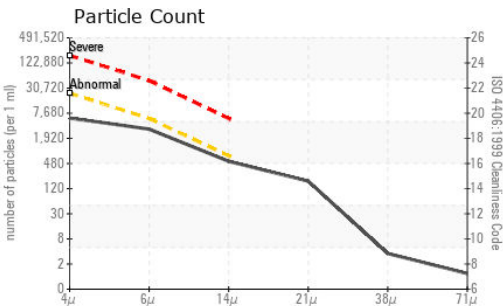
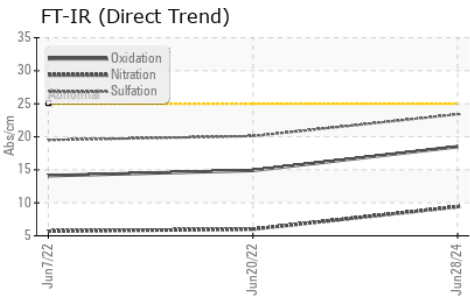
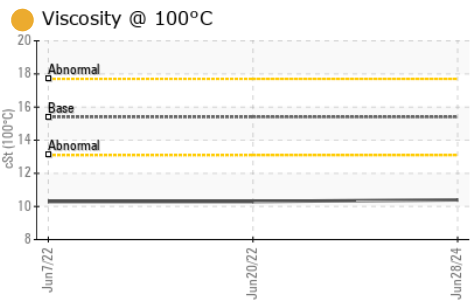
There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

Silicon	ppm	ASTM D5185m	>22	12	9	9
Potassium	ppm	ASTM D5185m	>20	5	0	0
Fuel		WC Method	>2.1	<1.0	<1.0	0.2
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.2	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	9.4	6.0	5.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.4	20.1	19.5
Particles >4µm		ASTM D7647	>20000	5124	5185	▲ 34535
Particles >6µm		ASTM D7647	>5000	2791	2525	▲ 18813
Particles >14µm		ASTM D7647	>640	475	481	▲ 3202
Particles >21µm		ASTM D7647	>160	160	162	▲ 1079
Particles >38µm		ASTM D7647	>40	3	25	▲ 167
Particles >71µm		ASTM D7647	>10	1	3	▲ 17
Oil Cleanliness		ISO 4406 (c)	>21/19/16	20/19/16	20/19/16	▲ 22/21/19
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	3	2	<1
Boron	ppm	ASTM D5185m		150	310	333
Barium	ppm	ASTM D5185m		4	<1	0
Molybdenum	ppm	ASTM D5185m		253	236	252
Manganese	ppm	ASTM D5185m		5	2	3
Magnesium	ppm	ASTM D5185m		821	702	723
Calcium	ppm	ASTM D5185m		1494	1329	1398
Phosphorus	ppm	ASTM D5185m		833	813	811
Zinc	ppm	ASTM D5185m		1048	960	951
Sulfur	ppm	ASTM D5185m		2771	2756	2692
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.5	14.9	14.1
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	7.7	11.0	9.8
Visc @ 100°C	cSt	ASTM D445	15.4	10.4	10.3	10.3



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0947933 **Received** : 02 Jul 2024
Lab Number : 06226087 **Tested** : 05 Jul 2024
Unique Number : 11109580 **Diagnosed** : 05 Jul 2024 - Jonathan Hester
Test Package : CONST (Additional Tests: PrtCount, TBN, KV40)

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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)