



OIL ANALYSIS REPORT

WEAR	SEVERE
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
JOHN DEERE 650 404213
 Component
Diesel Engine
 Fluid
VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3 (--- GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VCP438751	VCP406794	---
Sample Date		Client Info		13 Apr 2024	28 Jun 2023	---
Machine Age	hrs	Client Info		1893	1581	---
Oil Age	hrs	Client Info		0	0	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				SEVERE	SEVERE	---

WEAR

Bearing and/or bushing wear is indicated. Cylinder, crank, or cam shaft wear is indicated.

Iron	ppm	ASTM D5185m	>51	▲ 85	▲ 61	---
Chromium	ppm	ASTM D5185m	>11	4	3	---
Nickel	ppm	ASTM D5185m	>5	2	<1	---
Titanium	ppm	ASTM D5185m		<1	<1	---
Silver	ppm	ASTM D5185m	>3	<1	0	---
Aluminum	ppm	ASTM D5185m	>31	12	7	---
Lead	ppm	ASTM D5185m	>26	▲ 172	▲ 149	---
Copper	ppm	ASTM D5185m	>26	▲ 114	▲ 95	---
Tin	ppm	ASTM D5185m	>4	▲ 5	▲ 4	---
Vanadium	ppm	ASTM D5185m		<1	<1	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

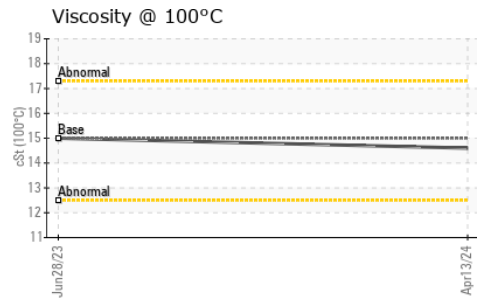
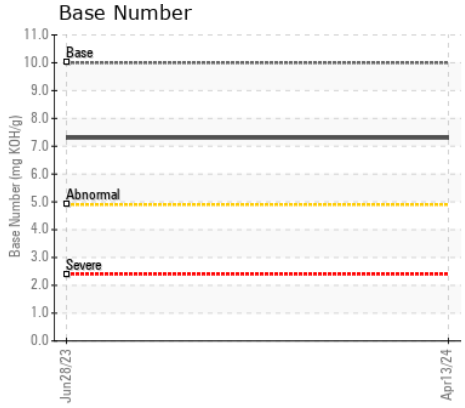
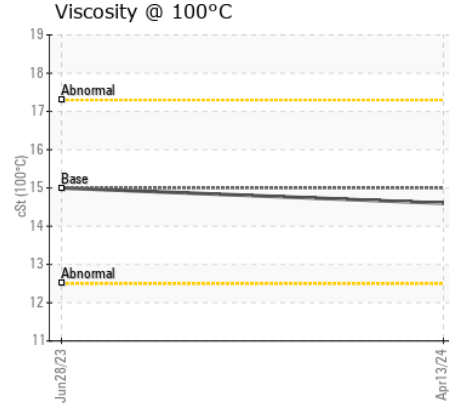
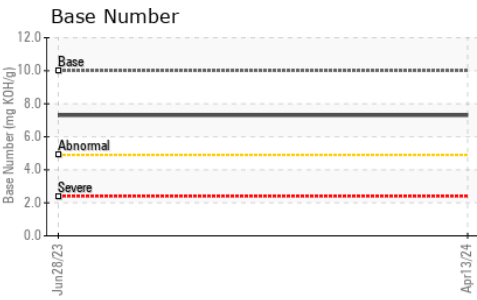
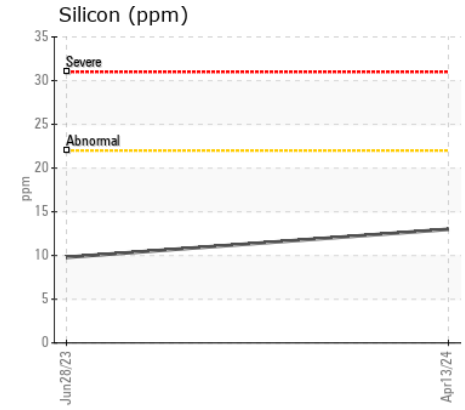
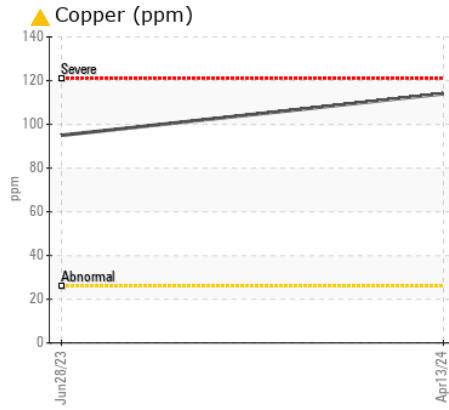
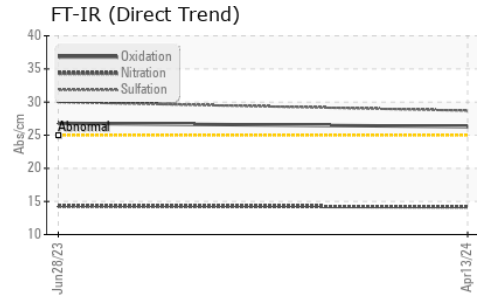
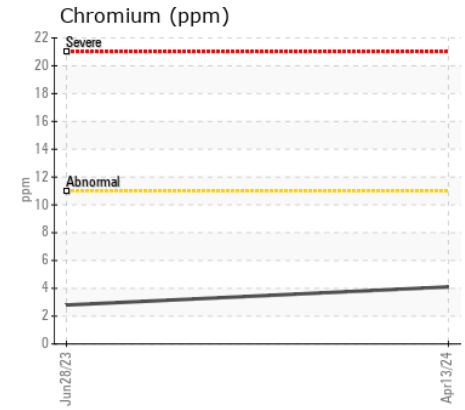
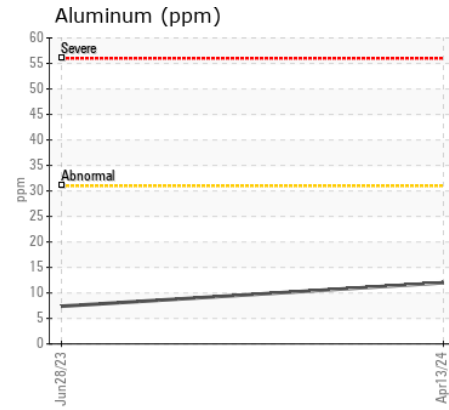
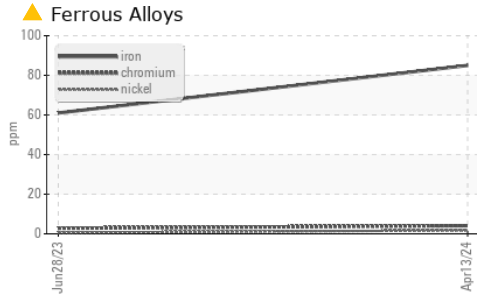
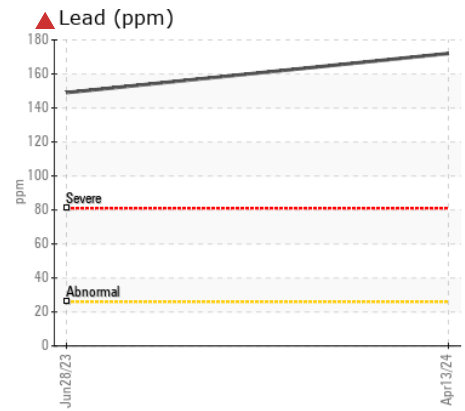
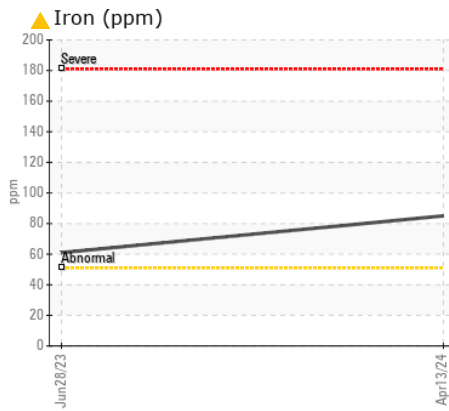
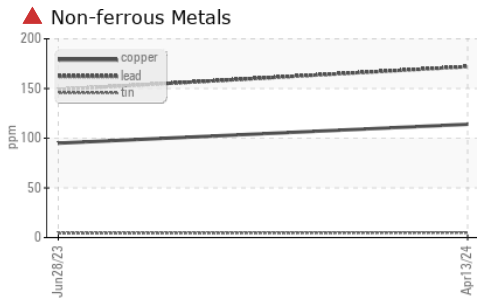
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>22	13	10	---
Potassium	ppm	ASTM D5185m	>20	7	6	---
Fuel		WC Method	>2.1	<1.0	<1.0	---
Water		WC Method	>0.21	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	1.1	1.2	---
Nitration	Abs/cm	*ASTM D7624	>20	14.2	14.3	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	28.7	30.0	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.21	NEG	NEG	---

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m	>31	9	5	---
Boron	ppm	ASTM D5185m	2.5	24	23	---
Barium	ppm	ASTM D5185m	0.0	0	0	---
Molybdenum	ppm	ASTM D5185m	0.7	200	163	---
Manganese	ppm	ASTM D5185m	0.0	3	3	---
Magnesium	ppm	ASTM D5185m	256	824	618	---
Calcium	ppm	ASTM D5185m	2057	2898	2216	---
Phosphorus	ppm	ASTM D5185m	935	1530	1047	---
Zinc	ppm	ASTM D5185m	1223	1871	1371	---
Sulfur	ppm	ASTM D5185m	4079	4667	3670	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	26.3	26.8	---
Base Number (BN)	mg KOH/g	ASTM D2896	10	7.3	7.3	---
Visc @ 100°C	cSt	ASTM D445	15.0	14.6	15.0	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : VCP438751

Lab Number : 06154041

Unique Number : 10989464

Test Package : MOB 1 (Additional Tests: TBN)

Received : 19 Apr 2024

Tested : 22 Apr 2024

Diagnosed : 23 Apr 2024 - Don Baldrige

ALTA EQUIPMENT COMPANY

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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)