



OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	ATTENTION
FLUID CONDITION	NORMAL



Area
Store 5 - Cross Lanes
Machine Id
JOHN DEERE 318D 1T0318DALCG235284
Component
Hydraulic System
Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (5 GAL)

RECOMMENDATION

No corrective action is recommended at this time. The 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		LEC0046259	LECP168644	---
Sample Date		Client Info		21 May 2024	16 May 2016	---
Machine Age	hrs	Client Info		250	110	---
Oil Age	hrs	Client Info		250	110	---
Filter Age	hrs	Client Info		0	110	---
Oil Changed		Client Info		Not Chngd	Not Chngd	---
Filter Changed		Client Info		Changed	Not Chngd	---
Sample Status				ABNORMAL	NORMAL	---

WEAR

The copper level is abnormal. All other component wear rates are normal.

PQ		ASTM D8184	>50	15	11.0	---
Iron	ppm	ASTM D5185m	>71	9	6	---
Chromium	ppm	ASTM D5185m	>11	<1	<1	---
Nickel	ppm	ASTM D5185m	>6	<1	<1	---
Titanium	ppm	ASTM D5185m		2	<1	---
Silver	ppm	ASTM D5185m		<1	0	---
Aluminum	ppm	ASTM D5185m	>11	5	3	---
Lead	ppm	ASTM D5185m	>13	9	3	---
Copper	ppm	ASTM D5185m	>21	▲ 43	15	---
Tin	ppm	ASTM D5185m	>5	1	<1	---
Vanadium	ppm	ASTM D5185m		<1	0	---
White Metal	scalar	*Visual	NONE	NONE	VLITE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

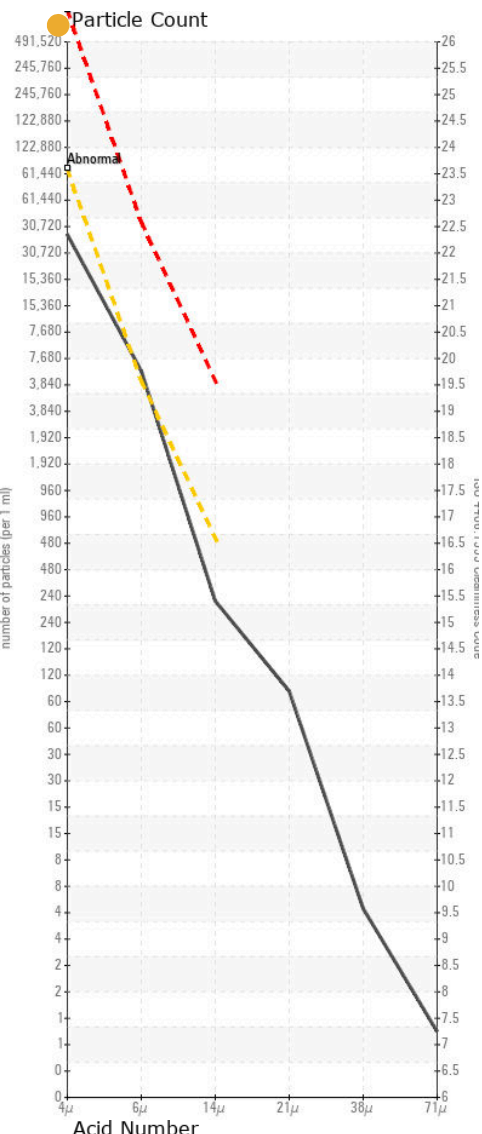
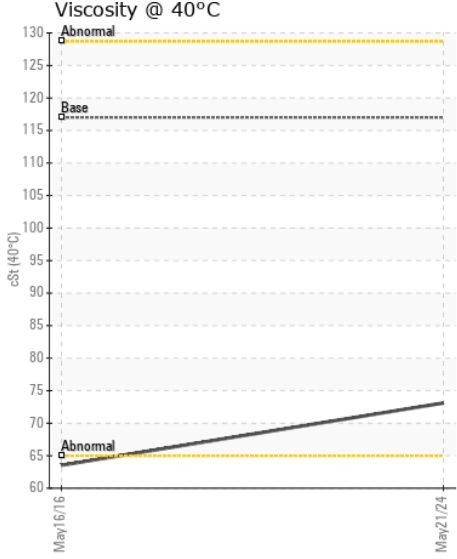
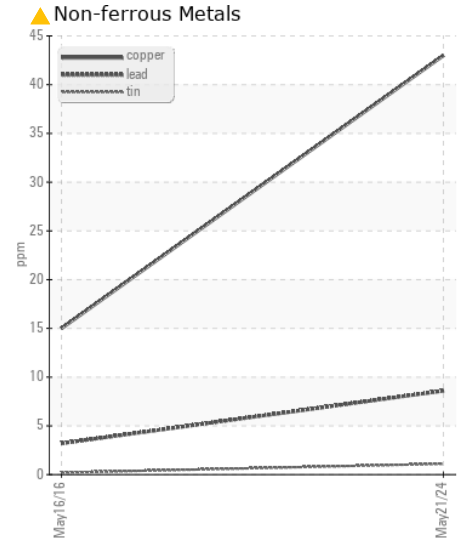
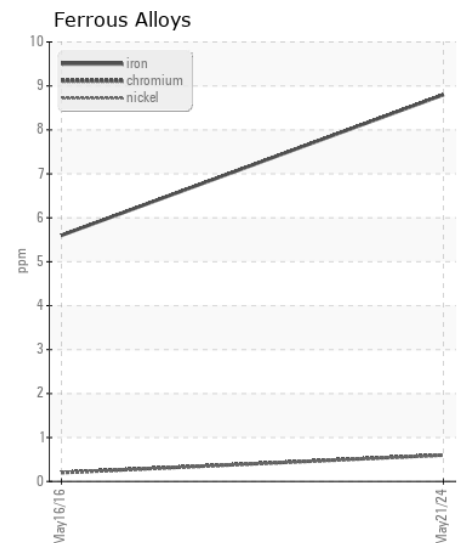
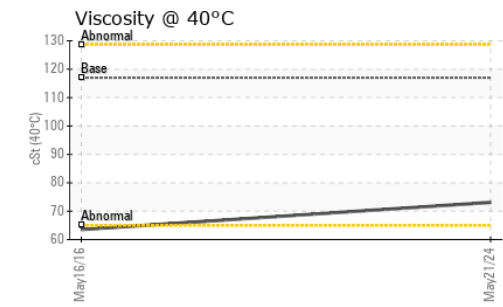
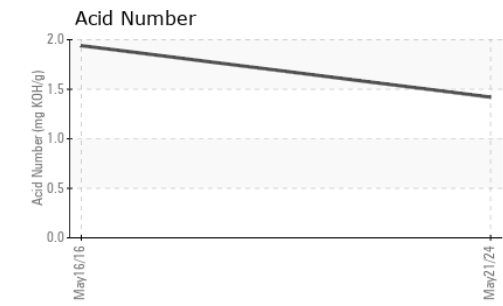
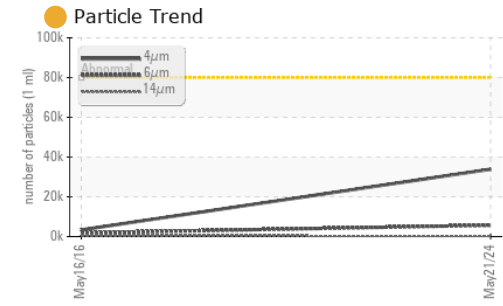
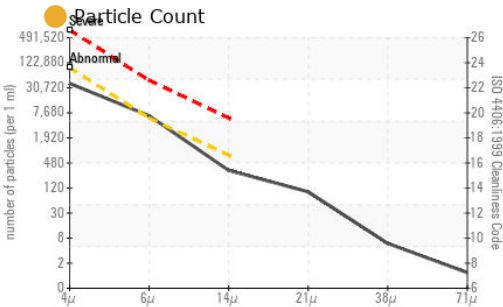
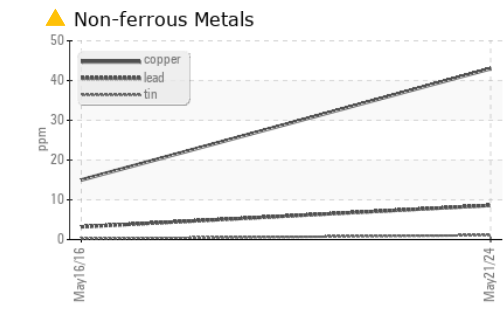
There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.

Silicon	ppm	ASTM D5185m	>24	10	10	---
Potassium	ppm	ASTM D5185m	>20	4	3	---
Water		WC Method	>0.075	NEG	NEG	---
Particles >4µm		ASTM D7647	>80000	33882	3370	---
Particles >6µm		ASTM D7647	>5000	● 5687	1836	---
Particles >14µm		ASTM D7647	>640	280	312	---
Particles >21µm		ASTM D7647	>160	86	105	---
Particles >38µm		ASTM D7647	>40	5	16	---
Particles >71µm		ASTM D7647	>10	1	1	---
Oil Cleanliness		ISO 4406 (c)	>23/19/16	● 22/20/15	19/18/15	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	VLITE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.075	NEG	NEG	---

FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oils additive package is suitable for further service.

Sodium	ppm	ASTM D5185m	>21	2	2	---
Boron	ppm	ASTM D5185m		213	62	---
Barium	ppm	ASTM D5185m		0	<1	---
Molybdenum	ppm	ASTM D5185m		148	47	---
Manganese	ppm	ASTM D5185m		2	1	---
Magnesium	ppm	ASTM D5185m		579	340	---
Calcium	ppm	ASTM D5185m		1896	2037	---
Phosphorus	ppm	ASTM D5185m		871	941	---
Zinc	ppm	ASTM D5185m		1139	1063	---
Sulfur	ppm	ASTM D5185m		3679	3884	---
Acid Number (AN)	mg KOH/g	ASTM D8045		1.42	1.94	---
Visc @ 40°C	cSt	ASTM D445	117	73.1	63.53	---



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LEC0046259 **Received** : 23 May 2024
Lab Number : 06189530 **Tested** : 03 Jun 2024
Unique Number : 11046282 **Diagnosed** : 03 Jun 2024 - Jonathan Hester
Test Package : CONST (Additional Tests: PQ)

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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)