



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL



Area
SOLD LOCATIONS - LESCHI - CHILLICOTHE
Machine Id
JOHN DEERE 644J DW644JZ616347
Component
Hydraulic System
Fluid
JOHN DEERE HY-GARD HYD/TRANS (32 GAL)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LEC0050864	LEC0038958	LEC0033127
Sample Date		Client Info		24 Jun 2024	15 Feb 2023	24 May 2022
Machine Age	hrs	Client Info		18841	17371	16524
Oil Age	hrs	Client Info		18841	17371	16524
Filter Age	hrs	Client Info		1470	17371	0
Oil Changed		Client Info		Not Chngd	Not Chngd	Not Chngd
Filter Changed		Client Info		Not Chngd	Changed	Changed
Sample Status				ABNORMAL	SEVERE	SEVERE

WEAR

All component wear rates are normal.

PQ		ASTM D8184	>50	16	13	16
Iron	ppm	ASTM D5185m	>71	8	8	9
Chromium	ppm	ASTM D5185m	>11	10	11	9
Nickel	ppm	ASTM D5185m	>6	<1	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	<1
Aluminum	ppm	ASTM D5185m	>11	1	<1	2
Lead	ppm	ASTM D5185m	>13	0	<1	<1
Copper	ppm	ASTM D5185m	>21	0	<1	<1
Tin	ppm	ASTM D5185m	>5	0	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

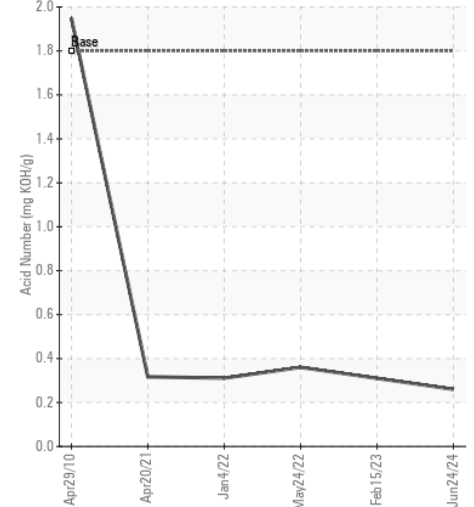
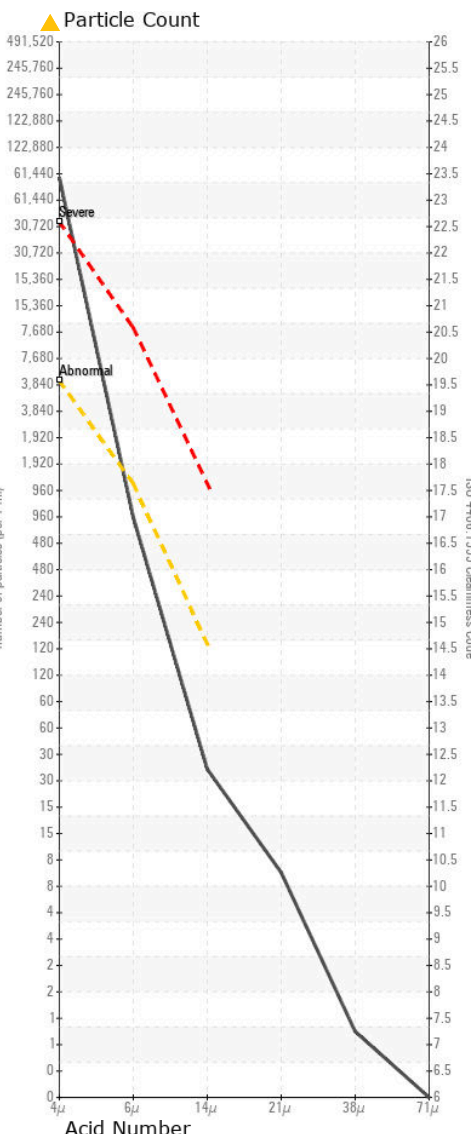
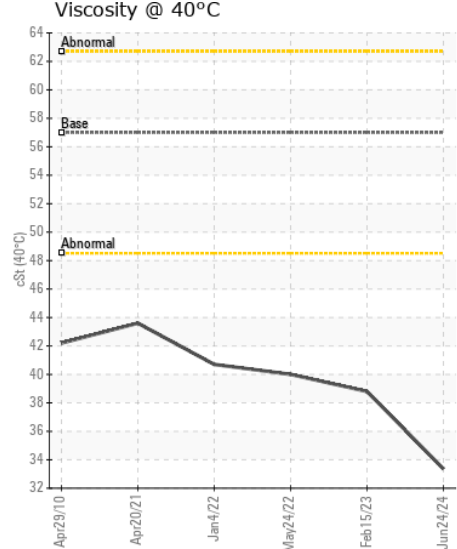
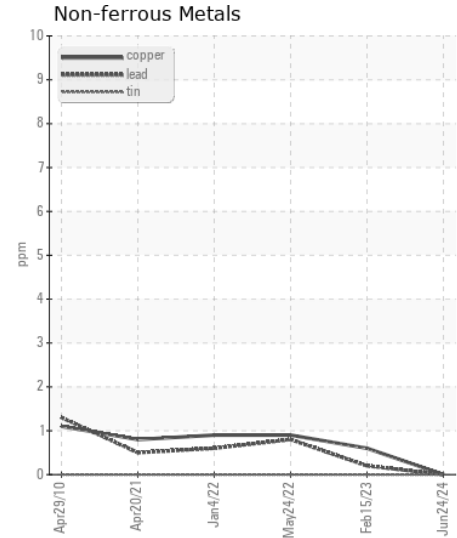
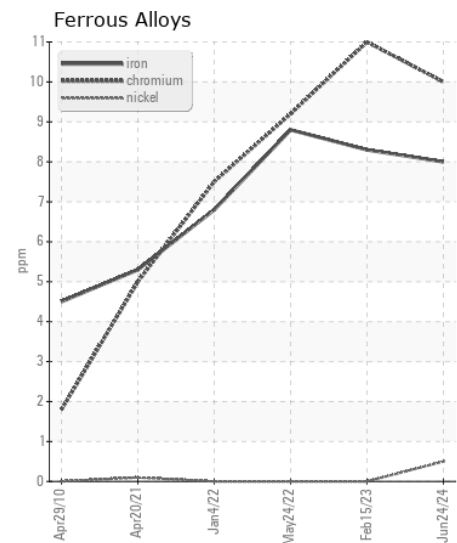
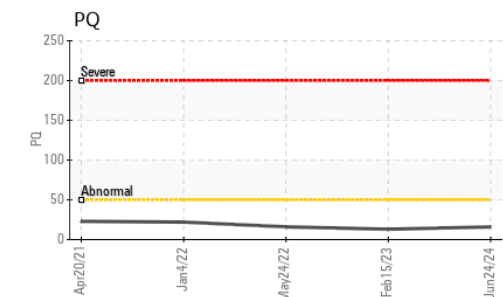
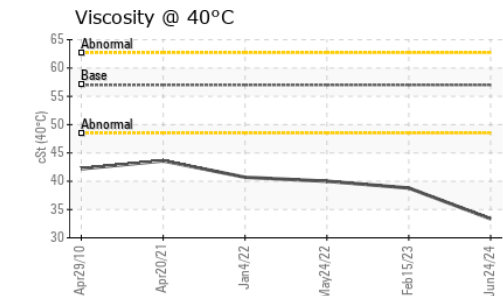
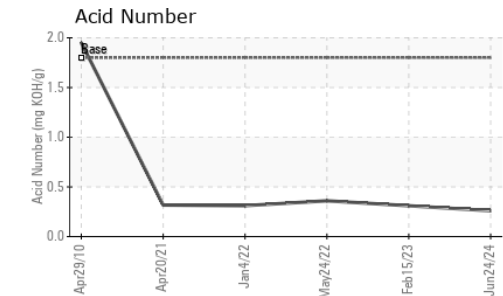
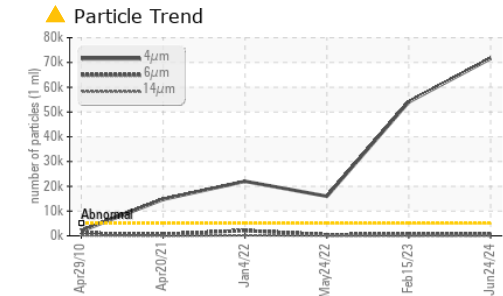
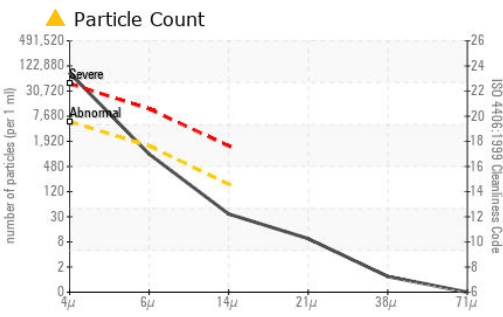
There is a high amount of silt (particulates < 6 microns in size) present in the oil.

Silicon	ppm	ASTM D5185m	>24	14	▲ 44	▲ 82
Potassium	ppm	ASTM D5185m	>20	0	2	0
Water		WC Method	>0.075	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>5000	▲ 71636	▲ 54085	▲ 15975
Particles >6µm		ASTM D7647	>1300	836	642	411
Particles >14µm		ASTM D7647	>160	31	21	37
Particles >21µm		ASTM D7647	>40	8	6	9
Particles >38µm		ASTM D7647	>10	1	0	0
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ 23/17/12	▲ 23/17/12	▲ 21/16/12
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	>0.075	NEG	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	1	0	<1
Boron	ppm	ASTM D5185m	6	2	11	18
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	0	1	11	13
Manganese	ppm	ASTM D5185m		<1	0	<1
Magnesium	ppm	ASTM D5185m	145	12	50	64
Calcium	ppm	ASTM D5185m	3570	148	● 376	● 587
Phosphorus	ppm	ASTM D5185m	1290	295	● 204	● 252
Zinc	ppm	ASTM D5185m	1640	385	● 242	● 268
Sulfur	ppm	ASTM D5185m		1197	● 1654	● 1535
Acid Number (AN)	mg KOH/g	ASTM D8045	1.8	0.26	0.31	0.36
Visc @ 40°C	cSt	ASTM D445	57.0	33.36	38.8	40.0



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LEC0050864 **Received** : 27 Jun 2024
Lab Number : 06222270 **Tested** : 02 Jul 2024
Unique Number : 11100467 **Diagnosed** : 02 Jul 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)