



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
JOHN DEERE 644P 1DW644PAJMLZ13178

Component
Hydraulic System

Fluid
JOHN DEERE HYDRAU (--- QTS)

RECOMMENDATION

The 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		WE0006273	WE0004060	WE0003291
Sample Date		Client Info		26 Feb 2024	04 Apr 2023	23 Jan 2023
Machine Age	hrs	Client Info		6442	3815	3234
Oil Age	hrs	Client Info		6442	0	0
Filter Age	hrs	Client Info		1	0	0
Oil Changed		Client Info		Not Changed	Not Changd	Not Changd
Filter Changed		Client Info		Changed	Not Changd	Not Changd
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
Iron	ppm	ASTM D5185m	>20	2	4	5
Chromium	ppm	ASTM D5185m	>10	5	6	6
Nickel	ppm	ASTM D5185m	>10	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>10	<1	2	<1
Lead	ppm	ASTM D5185m	>10	0	0	<1
Copper	ppm	ASTM D5185m	>75	0	<1	<1
Tin	ppm	ASTM D5185m	>10	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

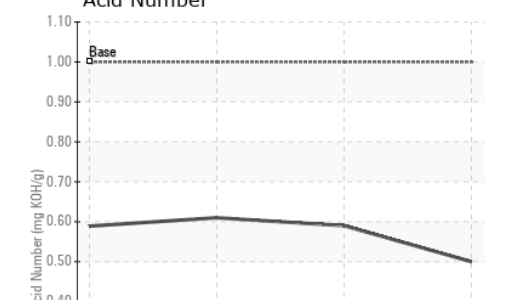
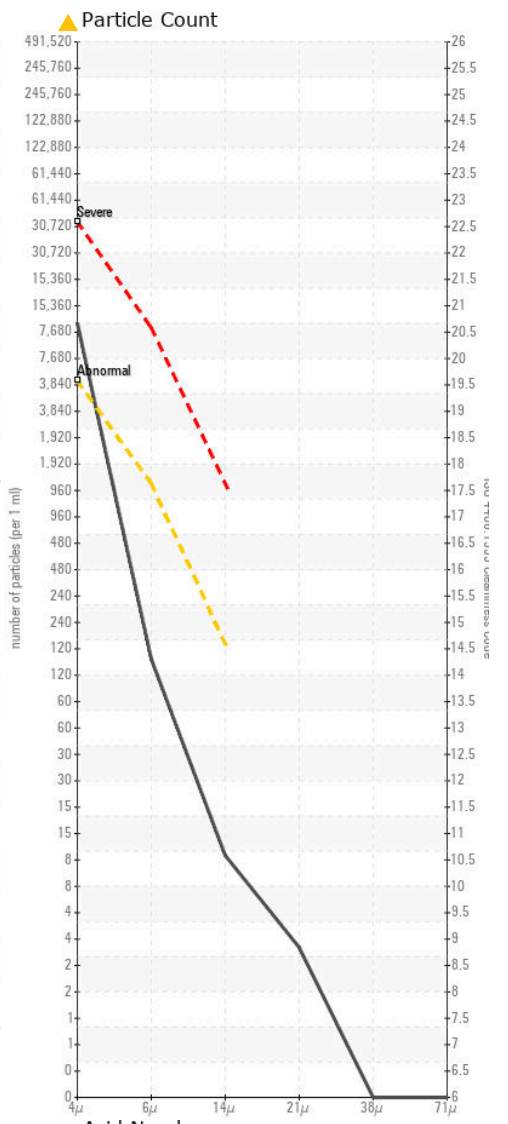
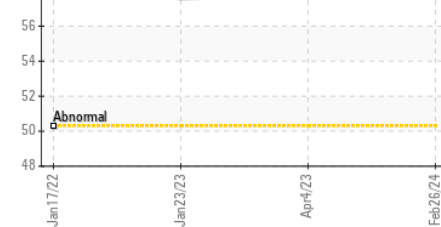
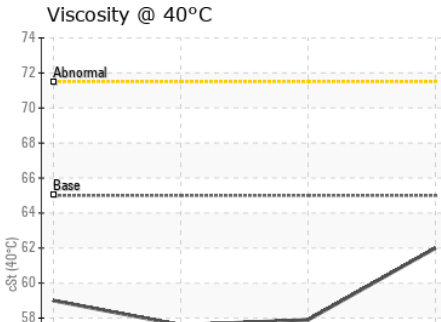
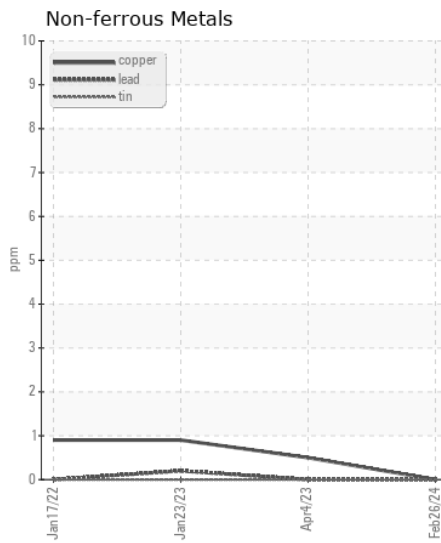
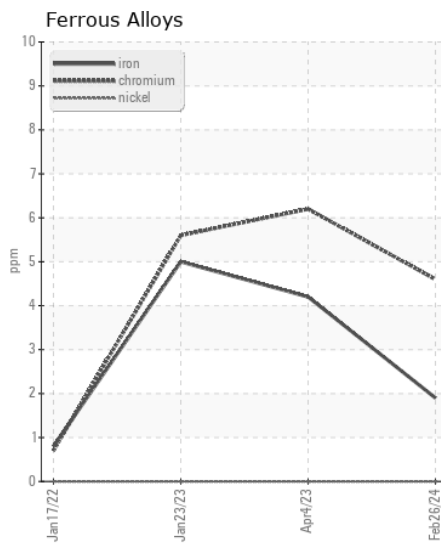
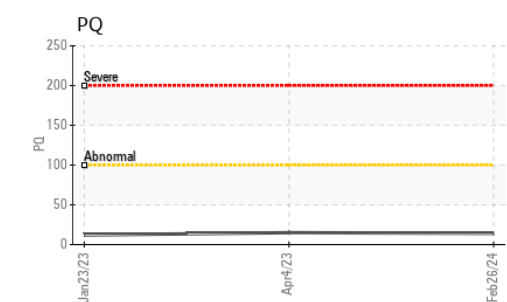
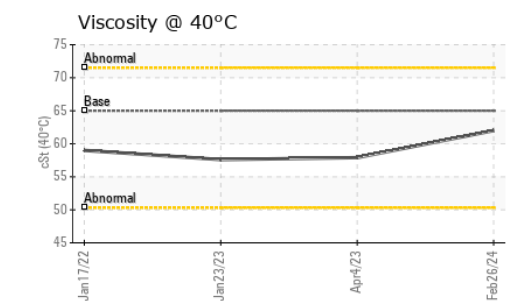
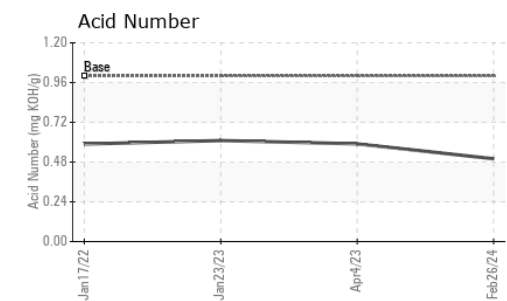
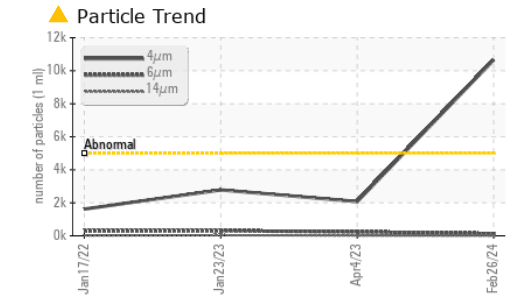
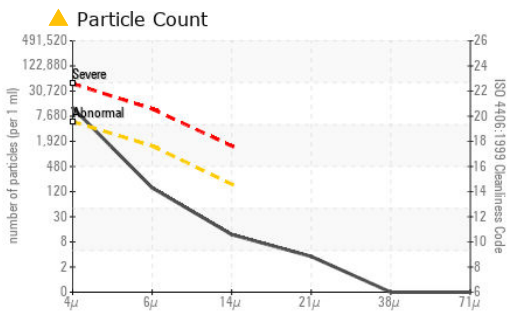
There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.

Silicon	ppm	ASTM D5185m	>20	0	1	1
Potassium	ppm	ASTM D5185m	>20	0	0	3
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>5000	10651	2074	2782
Particles >6µm		ASTM D7647	>1300	131	239	303
Particles >14µm		ASTM D7647	>160	10	19	36
Particles >21µm		ASTM D7647	>40	3	4	12
Particles >38µm		ASTM D7647	>10	0	0	1
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	21/14/10	18/15/11	19/15/12
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	>0.1	NEG	NEG	NEG

FLUID CONDITION

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

Sodium	ppm	ASTM D5185m		0	3	2
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		0	0	1
Molybdenum	ppm	ASTM D5185m		0	0	<1
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		1	2	1
Calcium	ppm	ASTM D5185m	87	60	74	74
Phosphorus	ppm	ASTM D5185m	727	395	549	550
Zinc	ppm	ASTM D5185m	900	549	683	730
Sulfur	ppm	ASTM D5185m	1500	981	1323	1412
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	0.50	0.59	0.61
Visc @ 40°C	cSt	ASTM D445	65	62.0	57.9	57.6



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WE0006273 **Received** : 27 Feb 2024
Lab Number : 06101508 **Tested** : 28 Feb 2024
Unique Number : 10899738 **Diagnosed** : 28 Feb 2024 - Wes Davis
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)