



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area

[W66345]

Machine Id

CATERPILLAR 938M CAT0938MJJ3R04964

Component

Hydraulic System

Fluid

JOHN DEERE HYDRAU (28 GAL)

RECOMMENDATION

Resample at the next service interval to monitor. (Customer Sample Comment: W66345)

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0206708	JR0192648	JR0161832
Sample Date		Client Info		23 Apr 2024	13 Dec 2023	19 May 2023
Machine Age	hrs	Client Info		11048	10324	9508
Oil Age	hrs	Client Info		8105	8197	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Not Changd	N/A
Filter Changed		Client Info		Not Changd	Not Changd	N/A
Sample Status				NORMAL	NORMAL	ABNORMAL

WEAR

All component wear rates are normal.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
Iron	ppm	ASTM D5185m	>20	10	9	9
Chromium	ppm	ASTM D5185m	>10	0	0	<1
Nickel	ppm	ASTM D5185m	>10	0	0	<1
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>10	<1	<1	0
Lead	ppm	ASTM D5185m	>10	0	0	<1
Copper	ppm	ASTM D5185m	>75	3	3	4
Tin	ppm	ASTM D5185m	>10	0	0	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

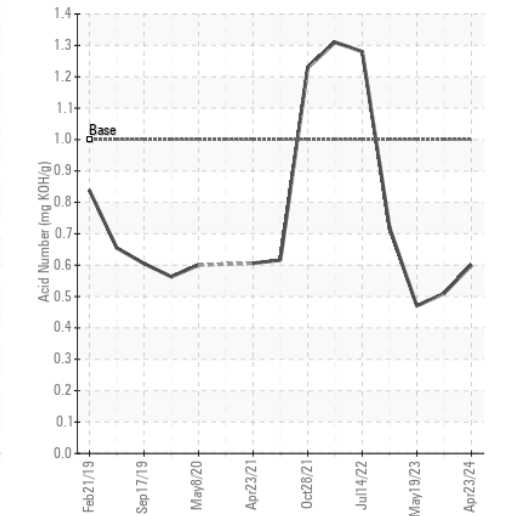
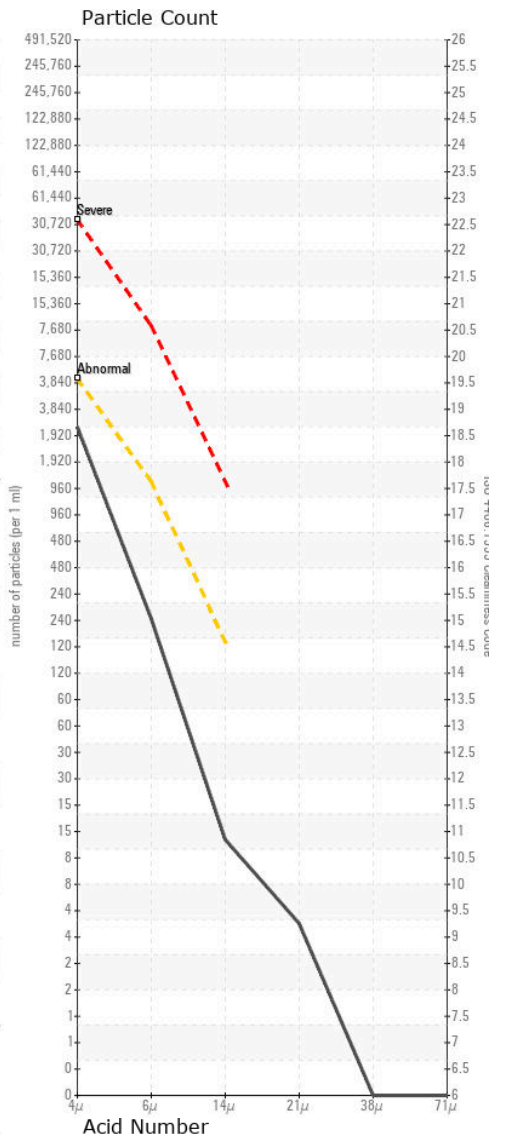
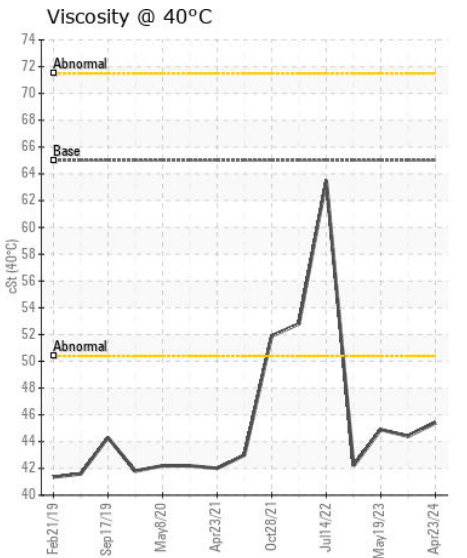
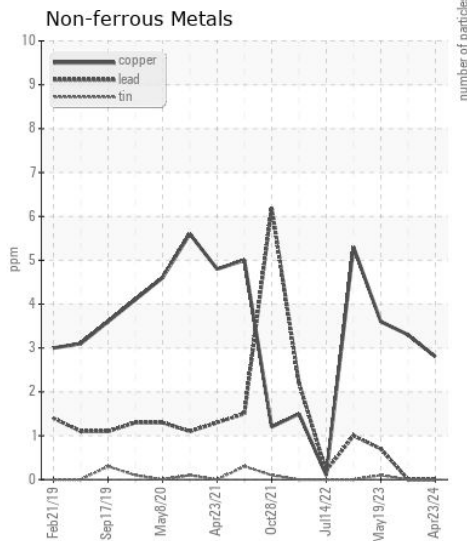
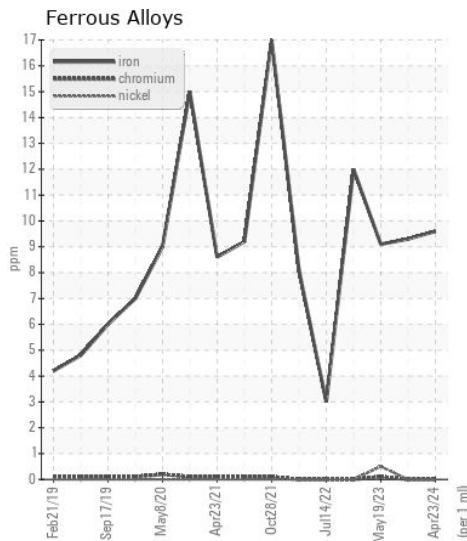
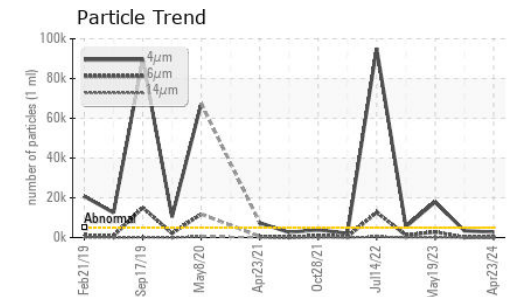
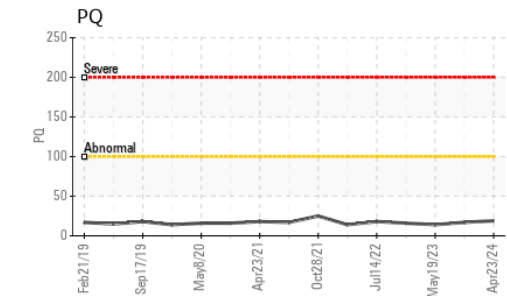
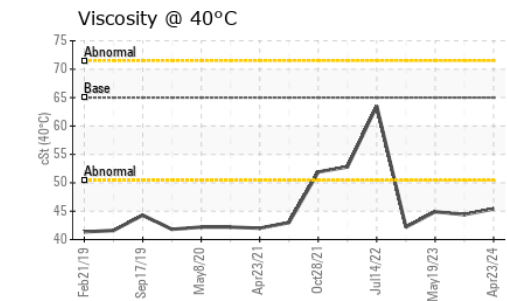
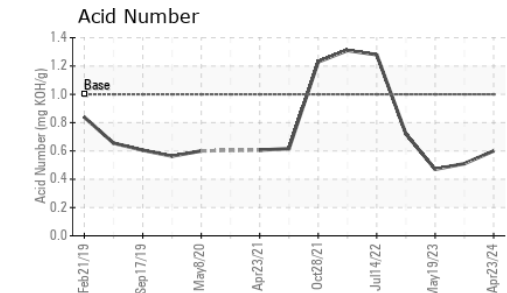
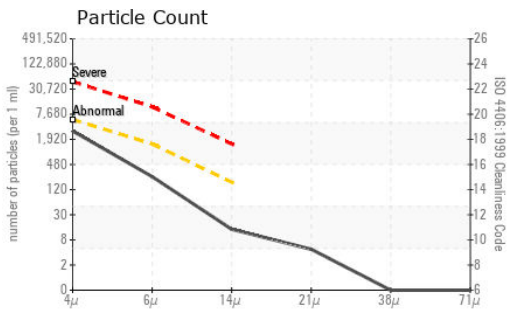
There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

Silicon	ppm	ASTM D5185m	>20	2	1	2
Potassium	ppm	ASTM D5185m	>20	<1	<1	2
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>5000	2663	3431	▲ 17870
Particles >6µm		ASTM D7647	>1300	216	149	▲ 2824
Particles >14µm		ASTM D7647	>160	12	13	136
Particles >21µm		ASTM D7647	>40	4	3	26
Particles >38µm		ASTM D7647	>10	0	0	0
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	19/15/11	19/14/11	▲ 21/19/14
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 condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		1	1	0
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		<1	0	0
Molybdenum	ppm	ASTM D5185m		<1	1	2
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m		2	3	7
Calcium	ppm	ASTM D5185m	87	184	161	181
Phosphorus	ppm	ASTM D5185m	727	648	632	676
Zinc	ppm	ASTM D5185m	900	562	513	578
Sulfur	ppm	ASTM D5185m	1500	1495	1152	1349
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	0.60	0.51	0.47
Visc @ 40°C	cSt	ASTM D445	65	45.4	44.4	44.9



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0206708 **Received** : 25 Apr 2024
Lab Number : 06160257 **Tested** : 26 Apr 2024
Unique Number : 10995680 **Diagnosed** : 26 Apr 2024 - Don Baldrige
Test Package : CONST (Additional Tests: PQ)

JRE - CHARLOTTE
 9550 STATESVILLE ROAD
 CHARLOTTE, NC
 US 28269

Contact: CHARLOTTE SHOP
 myoung@jamesriverequipment.com

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)

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