



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
Store 1 - Cowen [RO#149061]
Machine Id
JOHN DEERE 648L2 1DW648LBKNF715642
Component
Hydraulic System
Fluid
JOHN DEERE HYDRAU (33 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LEC0048937	LEC0041080	---
Sample Date		Client Info		17 Apr 2024	17 Jul 2023	---
Machine Age	hrs	Client Info		834	427	---
Oil Age	hrs	Client Info		834	427	---
Filter Age	hrs	Client Info		834	427	---
Oil Changed		Client Info		Not Chngd	Not Chngd	---
Filter Changed		Client Info		Not Chngd	Not Chngd	---
Sample Status				NORMAL	NORMAL	---

WEAR

All component wear rates are normal.

PQ		ASTM D8184	>50	17	15	---
Iron	ppm	ASTM D5185m	>23	<1	<1	---
Chromium	ppm	ASTM D5185m	>9	<1	0	---
Nickel	ppm	ASTM D5185m	>5	0	0	---
Titanium	ppm	ASTM D5185m		0	0	---
Silver	ppm	ASTM D5185m		0	<1	---
Aluminum	ppm	ASTM D5185m	>9	0	0	---
Lead	ppm	ASTM D5185m	>28	<1	0	---
Copper	ppm	ASTM D5185m	>51	4	1	---
Tin	ppm	ASTM D5185m	>5	0	0	---
Vanadium	ppm	ASTM D5185m		0	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

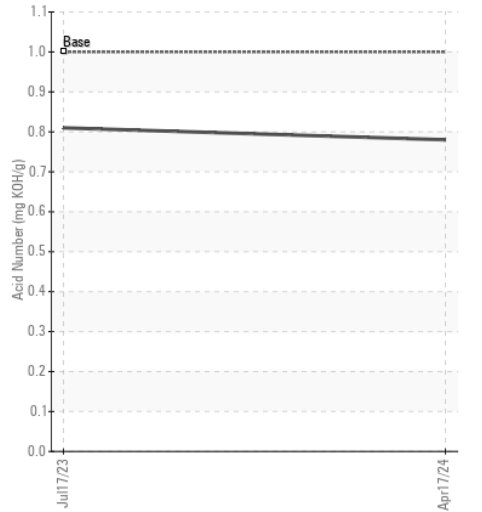
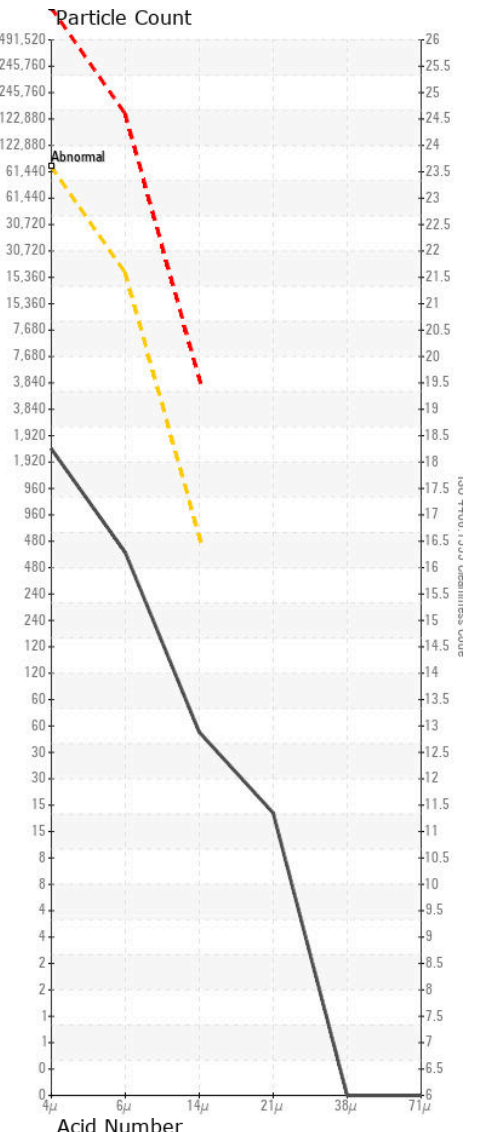
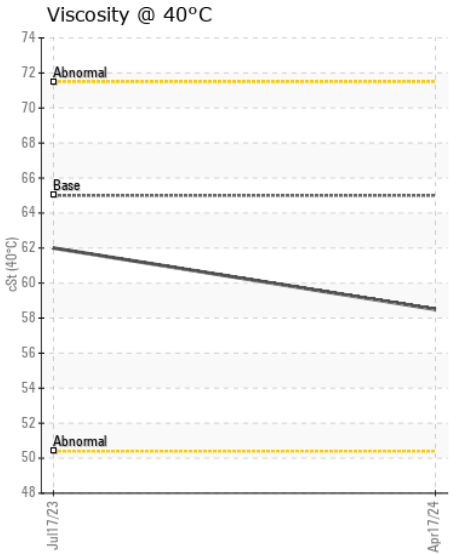
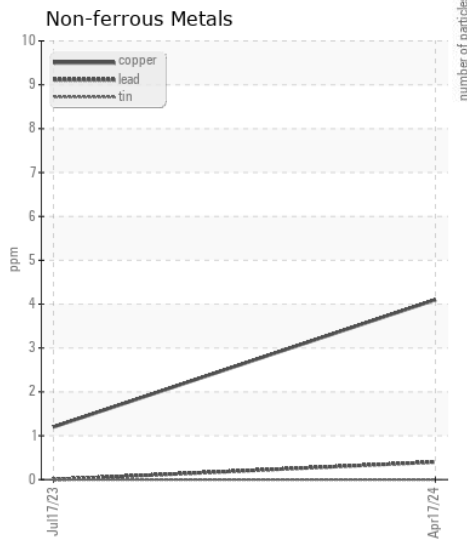
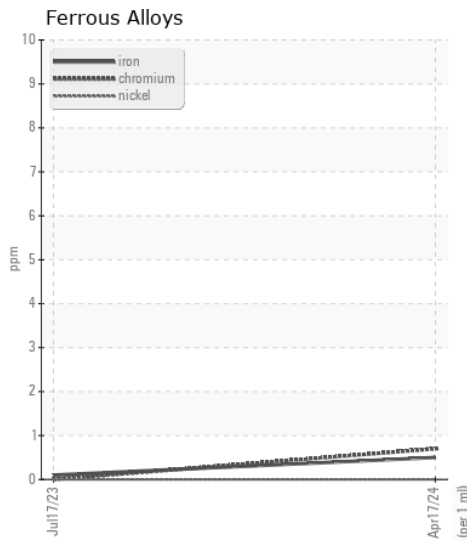
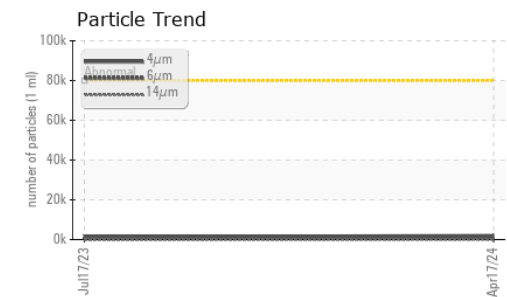
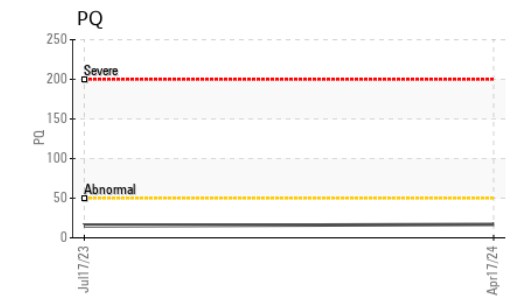
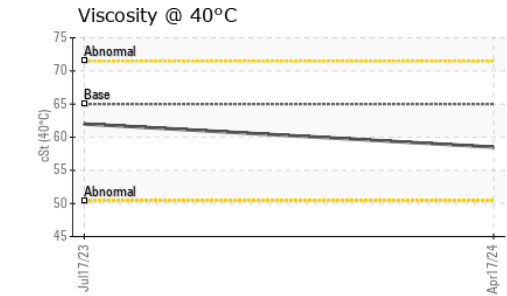
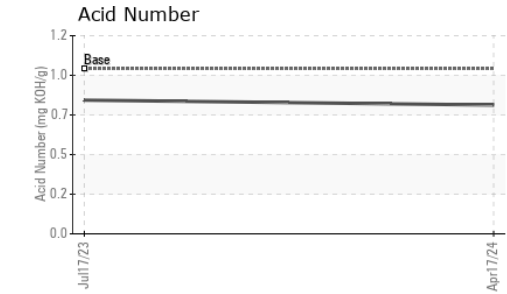
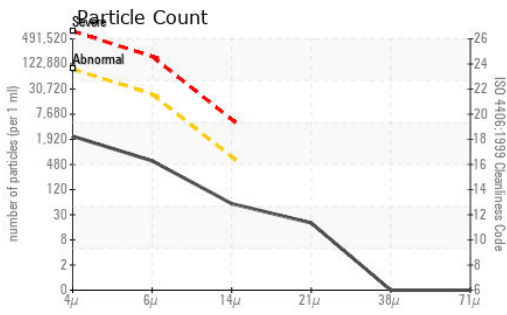
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Silicon	ppm	ASTM D5185m	>31	8	2	---
Potassium	ppm	ASTM D5185m	>20	3	1	---
Water		WC Method	>0.075	NEG	NEG	---
Particles >4µm		ASTM D7647	>80000	1997	1378	---
Particles >6µm		ASTM D7647	>20000	514	357	---
Particles >14µm		ASTM D7647	>640	49	33	---
Particles >21µm		ASTM D7647	>160	17	9	---
Particles >38µm		ASTM D7647	>40	0	1	---
Particles >71µm		ASTM D7647	>10	0	0	---
Oil Cleanliness		ISO 4406 (c)	>23/21/16	18/16/13	18/16/12	---
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	>0.075	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	>21	3	0	---
Boron	ppm	ASTM D5185m		0	0	---
Barium	ppm	ASTM D5185m		0	1	---
Molybdenum	ppm	ASTM D5185m		0	<1	---
Manganese	ppm	ASTM D5185m		<1	0	---
Magnesium	ppm	ASTM D5185m		3	1	---
Calcium	ppm	ASTM D5185m	87	123	120	---
Phosphorus	ppm	ASTM D5185m	727	694	789	---
Zinc	ppm	ASTM D5185m	900	866	1028	---
Sulfur	ppm	ASTM D5185m	1500	2048	2232	---
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	0.78	0.81	---
Visc @ 40°C	cSt	ASTM D445	65	58.5	62.0	---



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LEC0048937 **Received** : 19 Apr 2024
Lab Number : 06154215 **Tested** : 22 Apr 2024
Unique Number : 10989638 **Diagnosed** : 22 Apr 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)