



WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
JOHN DEERE 460E 1DW460ETPEE664155

Component
Hydraulic System

Fluid
JOHN DEERE HYDRAU (64 GAL)

RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0199962	JR0180107	JR0165427
Sample Date		Client Info		18 Mar 2024	12 Oct 2023	06 Jun 2023
Machine Age	hrs	Client Info		8469	7988	7476
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Chngd	Changed	Not Chngd
Filter Changed		Client Info		Not Chngd	Changed	Not Chngd
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

PQ		ASTM D8184	>50	10	17	24
Iron	ppm	ASTM D5185m	>71	1	21	18
Chromium	ppm	ASTM D5185m	>11	<1	5	5
Nickel	ppm	ASTM D5185m	>6	0	0	0
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>11	2	4	3
Lead	ppm	ASTM D5185m	>13	0	0	0
Copper	ppm	ASTM D5185m	>21	7	7	7
Tin	ppm	ASTM D5185m	>5	0	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	LIGHT
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

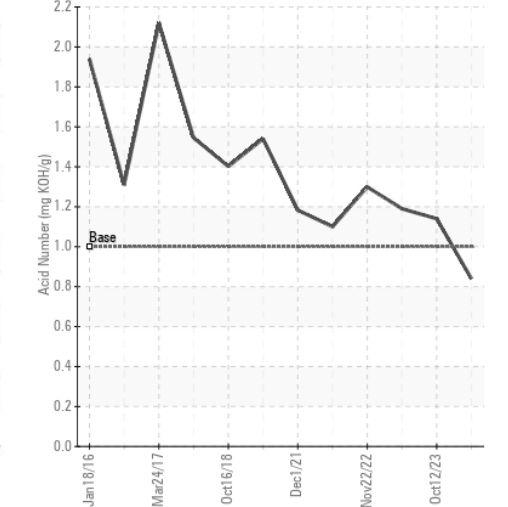
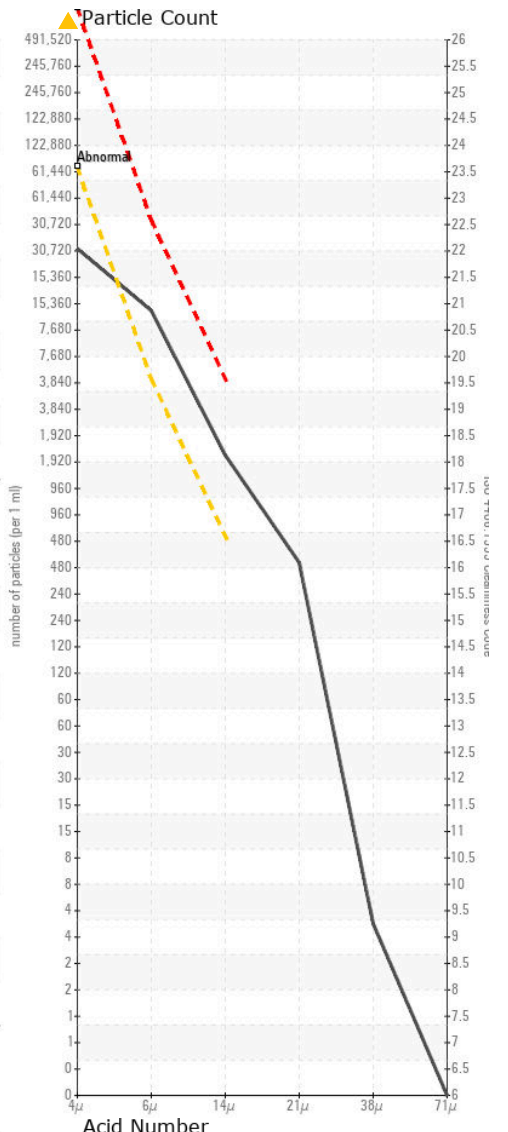
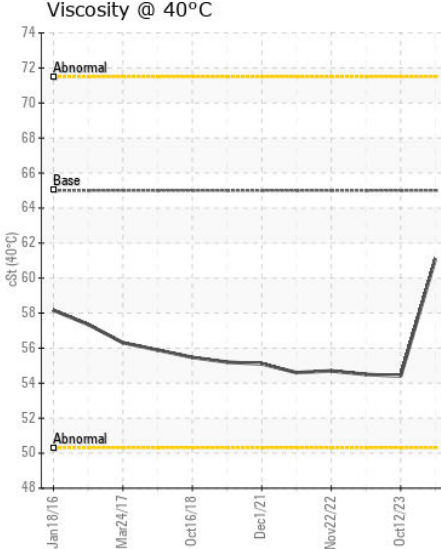
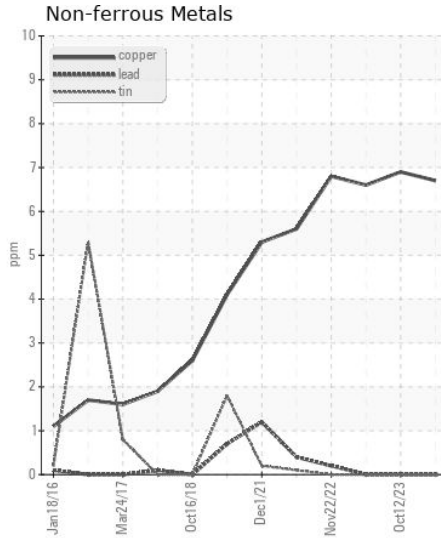
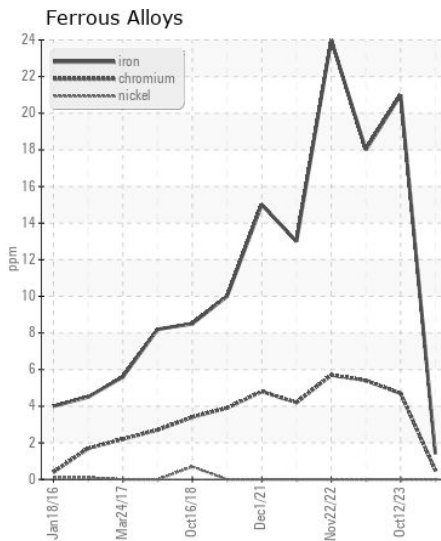
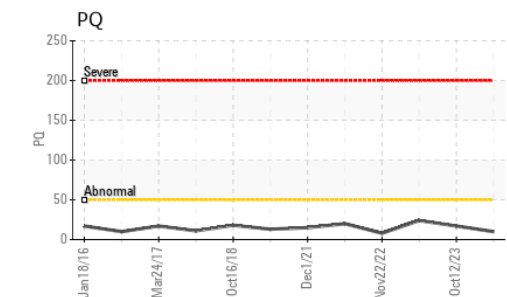
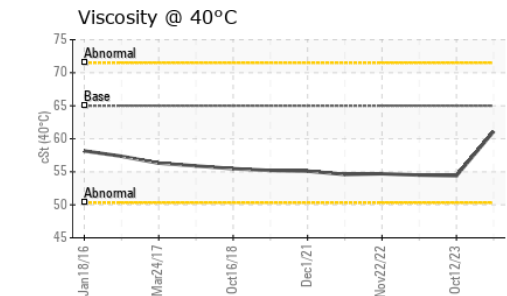
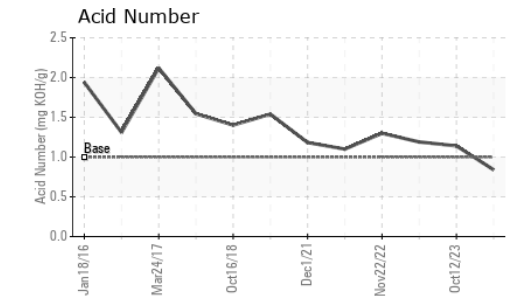
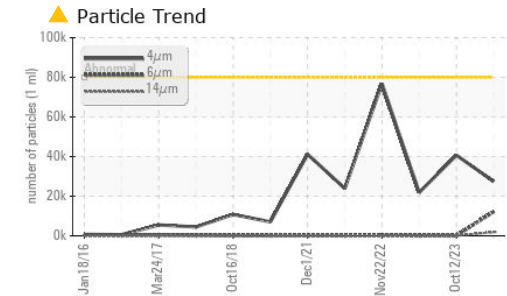
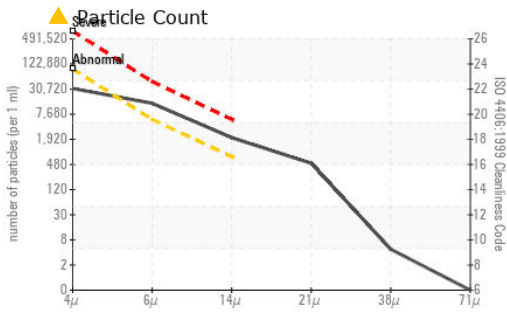
There is a high amount of particulates present in the oil.

Silicon	ppm	ASTM D5185m	>24	10	13	13
Potassium	ppm	ASTM D5185m	>20	0	1	1
Water		WC Method	>0.075	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>80000	27457	40663	21881
Particles >6µm		ASTM D7647	>5000	▲ 12196	92	68
Particles >14µm		ASTM D7647	>640	▲ 1840	9	6
Particles >21µm		ASTM D7647	>160	▲ 451	2	0
Particles >38µm		ASTM D7647	>40	4	0	0
Particles >71µm		ASTM D7647	>10	0	0	0
Oil Cleanliness		ISO 4406 (c)	>23/19/16	▲ 22/21/18	23/14/10	22/13/10
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	LIGHT	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 oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m	>21	0	5	5
Boron	ppm	ASTM D5185m		72	49	54
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		1	5	6
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m		41	155	161
Calcium	ppm	ASTM D5185m	87	2604	2476	2579
Phosphorus	ppm	ASTM D5185m	727	1031	1023	1020
Zinc	ppm	ASTM D5185m	900	1292	1258	1287
Sulfur	ppm	ASTM D5185m	1500	5772	4914	6058
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	0.84	1.14	1.19
Visc @ 40°C	cSt	ASTM D445	65	61.1	54.4	54.5



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0199962 **Received** : 19 Mar 2024
Lab Number : 06122236 **Tested** : 20 Mar 2024
Unique Number : 10936387 **Diagnosed** : 21 Mar 2024 - Don Baldrige
Test Package : CONST (Additional Tests: PQ)

J.E. LIESFELD CONTRACTOR
 1851 BENNINGTON RD
 ROCKVILLE, VA
 US 23146
 Contact: CIELO NAVA-OVALLE
 cielo@liesfeld.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)