



OIL ANALYSIS REPORT

WEAR
CONTAMINATION
FLUID CONDITION

ATTENTION
ABNORMAL
NORMAL



Area
Store 1 - Cowen [141340]
Machine Id
JOHN DEERE 648H 1DW648HXPED660415
Component
Front Differential
Fluid
TDH FLUID SAE 75W80 (--- GAL)

RECOMMENDATION

We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LEC0043583	LEC0035061	LEC0026883
Sample Date		Client Info		22 Aug 2023	16 Jan 2023	27 May 2022
Machine Age	hrs	Client Info		9874	9327	8763
Oil Age	hrs	Client Info		1111	564	937
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Not Chngd	Changed
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	ABNORMAL	ATTENTION

WEAR

All component wear rates are normal.

PQ		ASTM D8184		405	183	216
Iron	ppm	ASTM D5185m	>1501	645	239	537
Chromium	ppm	ASTM D5185m	>11	4	2	3
Nickel	ppm	ASTM D5185m	>10	4	2	3
Titanium	ppm	ASTM D5185m		2	1	2
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>21	28	11	18
Lead	ppm	ASTM D5185m	>51	2	<1	<1
Copper	ppm	ASTM D5185m	>101	12	4	10
Tin	ppm	ASTM D5185m	>10	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

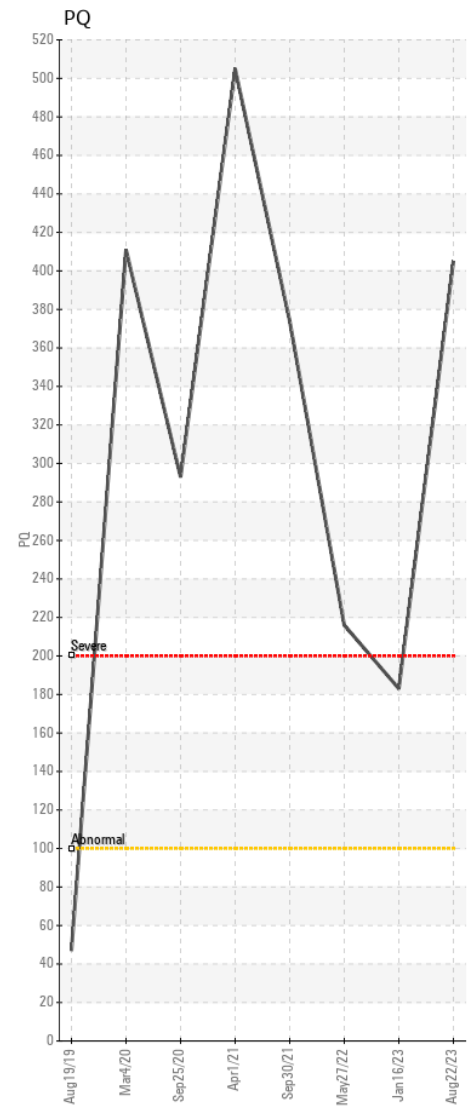
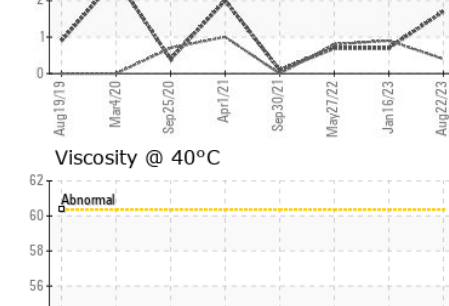
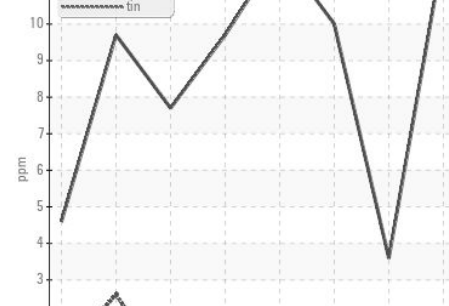
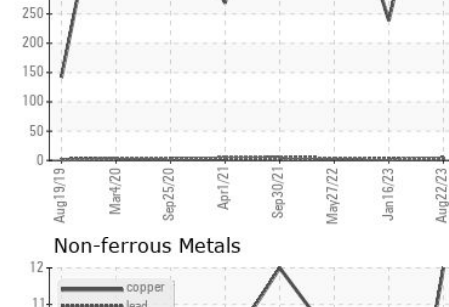
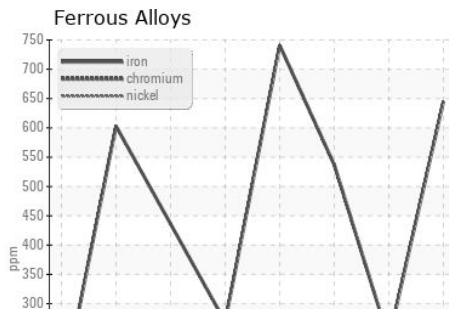
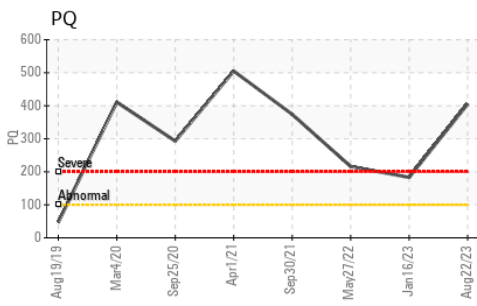
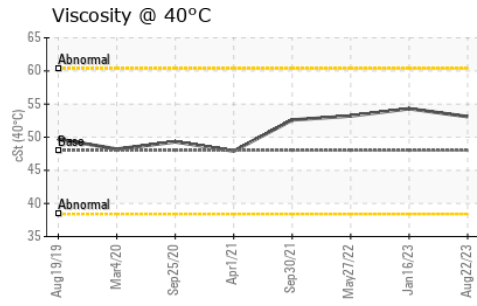
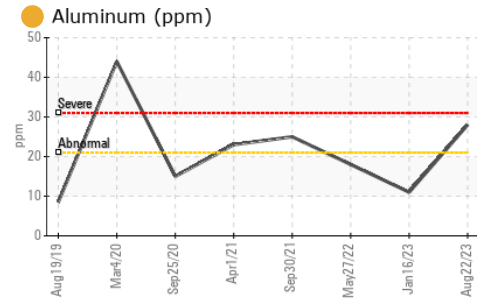
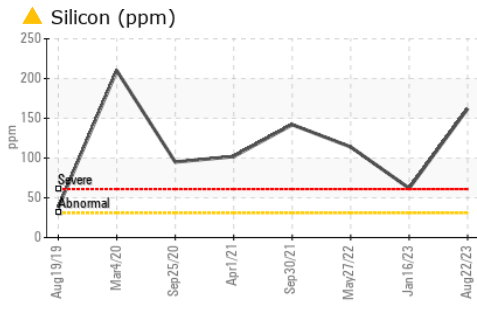
Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

Silicon	ppm	ASTM D5185m	>31	162	62	114
Potassium	ppm	ASTM D5185m	>20	9	2	3
Water		WC Method	>0.1	NEG	NEG	NEG
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 condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m	>51	0	2	2
Boron	ppm	ASTM D5185m	10	0	0	11
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	10	1	1	4
Manganese	ppm	ASTM D5185m		6	2	5
Magnesium	ppm	ASTM D5185m	100	95	102	107
Calcium	ppm	ASTM D5185m	3500	3303	3582	3326
Phosphorus	ppm	ASTM D5185m	1150	967	982	930
Zinc	ppm	ASTM D5185m	1150	1165	1223	1169
Sulfur	ppm	ASTM D5185m	5000	3640	4017	4297
Visc @ 40°C	cSt	ASTM D445	48	53.1	54.3	53.2



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LEC0043583 **Received** : 25 Aug 2023
Lab Number : 05934996 **Tested** : 25 Aug 2023
Unique Number : 10620267 **Diagnosed** : 28 Aug 2023 - Sean Felton
Test Package : CONST (Additional Tests: PQ)

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Certificate L2367
 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)