



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
JOHN DEERE 4640 JD 4640

Component
Diesel Engine

Fluid
TRC PRO-SPEC III SYNTHETIC BLEND 15W40 (5 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR06158511	TR05459786	TR05317092
Sample Date		Client Info		19 Apr 2024	30 Jan 2022	26 Jul 2021
Machine Age	hrs	Client Info		11208	10939	10851
Oil Age	hrs	Client Info		269	299	211
Filter Age	hrs	Client Info		269	299	211
Oil Changed		Client Info		Changed	Changed	Not Changd
Filter Changed		Client Info		Changed	Changed	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	43	40	24
Chromium	ppm	ASTM D5185m	>11	1	<1	<1
Nickel	ppm	ASTM D5185m	>5	2	1	1
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>31	3	3	2
Lead	ppm	ASTM D5185m	>26	4	5	4
Copper	ppm	ASTM D5185m	>26	4	20	17
Tin	ppm	ASTM D5185m	>4	2	2	2
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

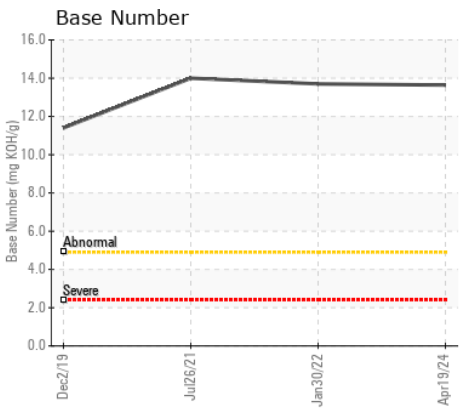
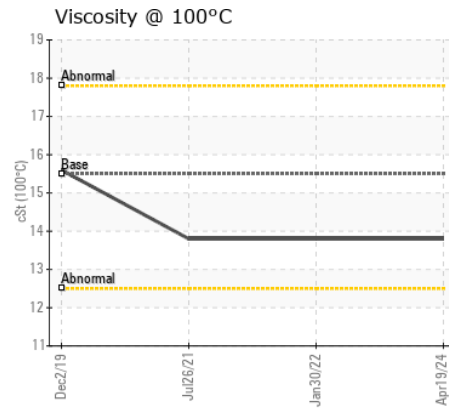
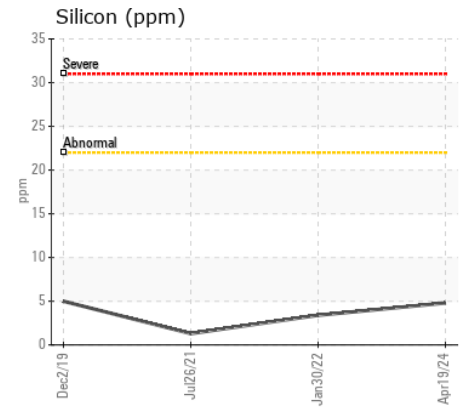
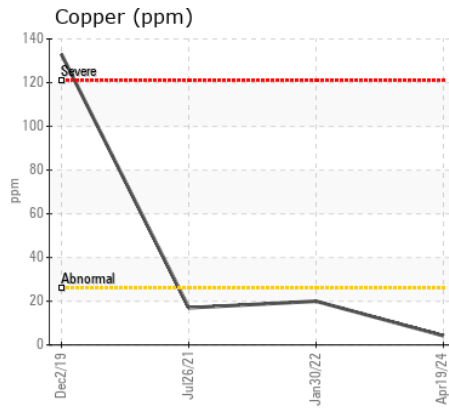
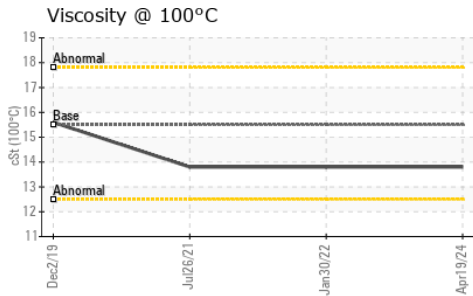
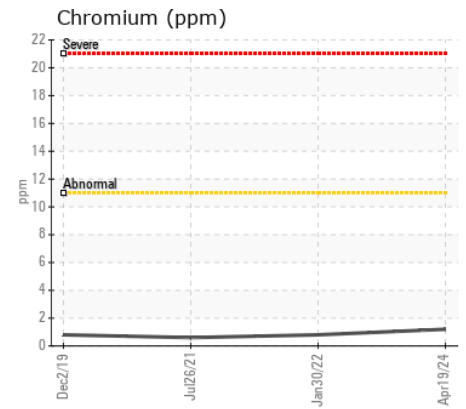
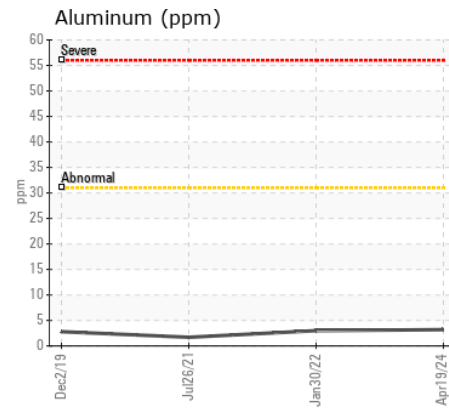
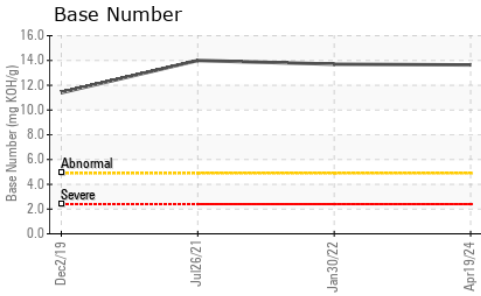
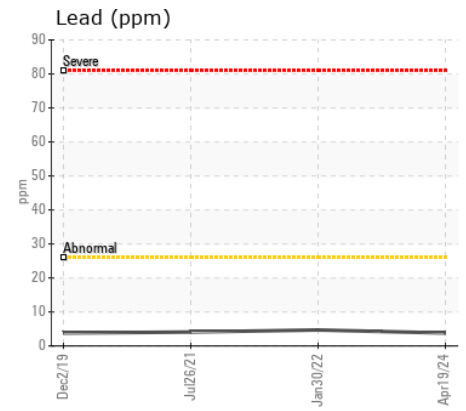
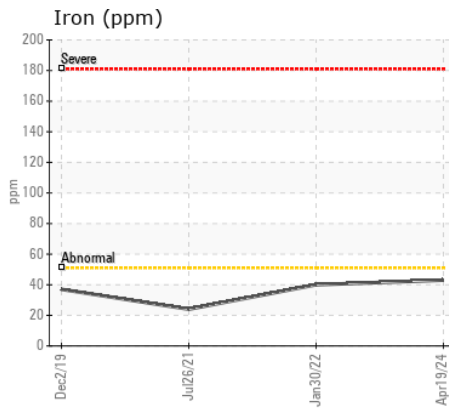
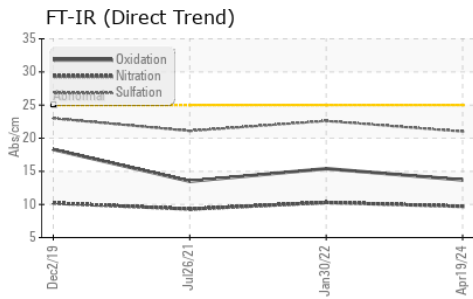
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>22	5	3	1
Potassium	ppm	ASTM D5185m	>20	3	2	1
Fuel		WC Method	>2.1	<1.0	<1.0	<1.0
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.5	0.6	0.5
Nitration	Abs/cm	*ASTM D7624	>20	9.7	10.3	9.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.0	22.6	21.1
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	>0.21	NEG	NEG	NEG

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>31	17	<1	3
Boron	ppm	ASTM D5185m		6	3	0
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		11	12	6
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		29	27	28
Calcium	ppm	ASTM D5185m		4733	5402	5266
Phosphorus	ppm	ASTM D5185m		926	1005	996
Zinc	ppm	ASTM D5185m		1077	1155	1155
Sulfur	ppm	ASTM D5185m		4149	3501	3948
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.7	15.4	13.5
Base Number (BN)	mg KOH/g	ASTM D2896		13.64	13.7	14.0
Visc @ 100°C	cSt	ASTM D445	15.5	13.8	13.8	13.8



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR06158511
Lab Number : 06158511
Unique Number : 10993934
Test Package : MOB 2
Received : 23 Apr 2024
Tested : 25 Apr 2024
Diagnosed : 25 Apr 2024 - Wes Davis

PRECISION FARMS LLC
 PO BOX 217
 LEIGH, NE
 US 68643
 Contact: ADAM COURTNEY

To discuss this sample report, contact Customer Service at 1-800-827-0711.
 * - 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)

T:
F: