



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
JOHN DEERE 4850 4850

Component
Diesel Engine

Fluid
TRC MOLY XL PRO-SPEC IV XP 15W40 (5 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR05957157	TR05887541	TR05824505
Sample Date		Client Info		13 Sep 2023	23 Jun 2023	08 Apr 2023
Machine Age	hrs	Client Info		12700	11950	11700
Oil Age	hrs	Client Info		1100	300	50
Filter Age	hrs	Client Info		1100	300	50
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal for time on oil.

Iron	ppm	ASTM D5185m	>51	84	53	12
Chromium	ppm	ASTM D5185m	>11	1	1	<1
Nickel	ppm	ASTM D5185m	>5	<1	1	0
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>31	<1	3	0
Lead	ppm	ASTM D5185m	>26	7	3	0
Copper	ppm	ASTM D5185m	>26	2	2	0
Tin	ppm	ASTM D5185m	>4	1	1	0
Vanadium	ppm	ASTM D5185m		<1	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

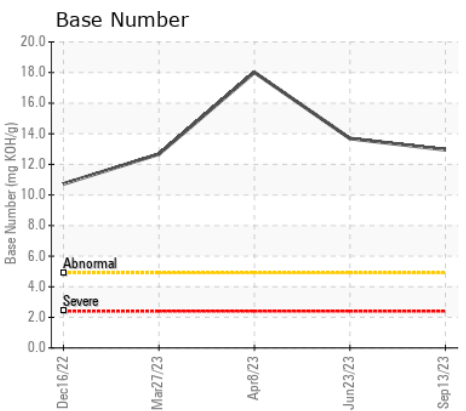
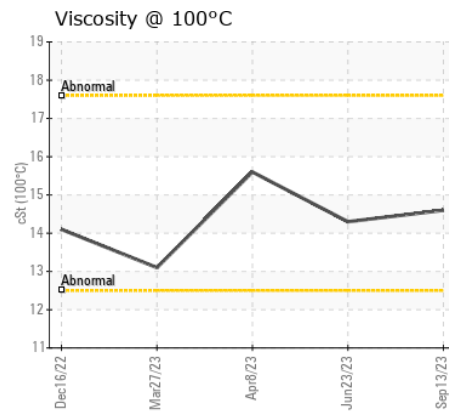
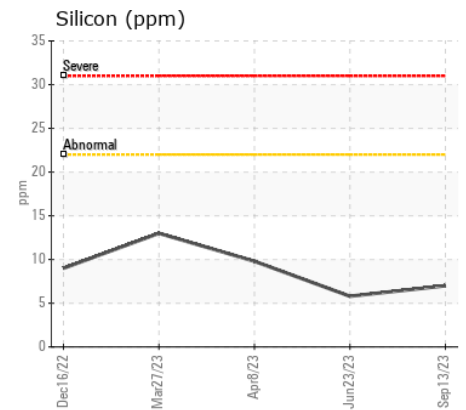
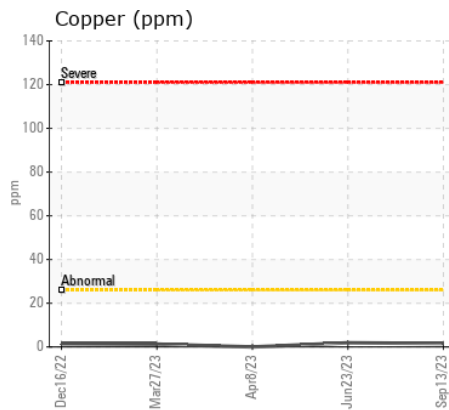
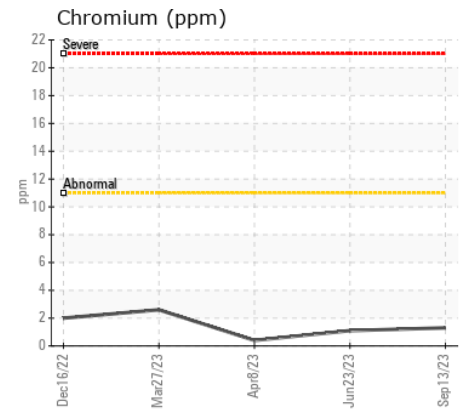
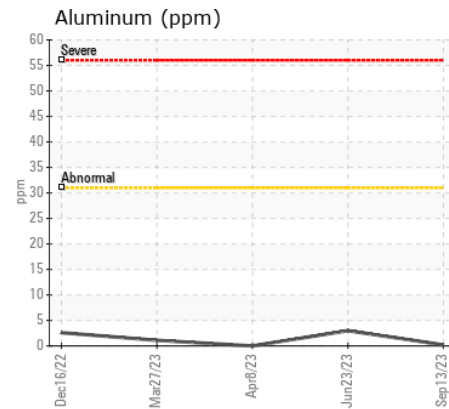
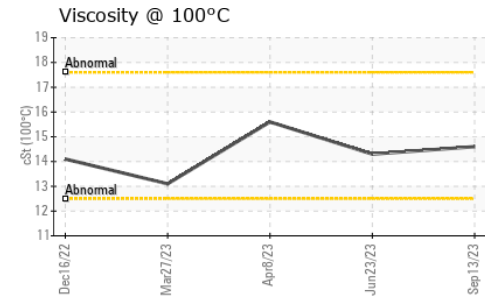
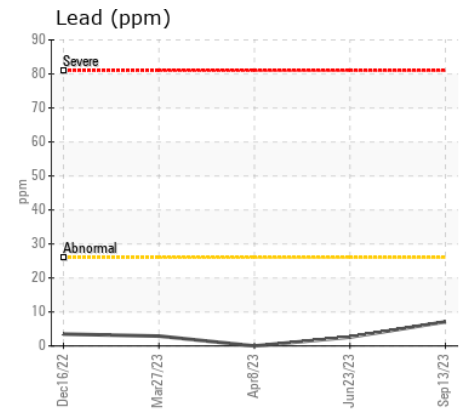
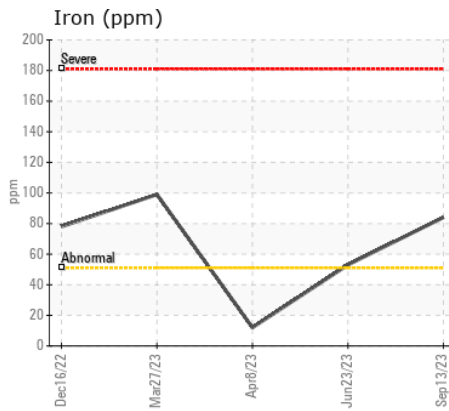
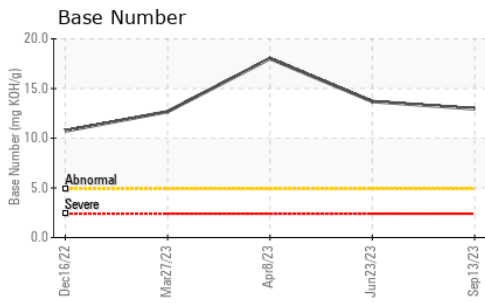
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>22	7	6	10
Potassium	ppm	ASTM D5185m	>20	3	2	0
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	0.1	0.6	0.1
Nitration	Abs/cm	*ASTM D7624	>20	14.5	12.1	7.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	27.8	23.0	15.3
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	3	2	2
Boron	ppm	ASTM D5185m		0	3	0
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		118	110	103
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		22	21	21
Calcium	ppm	ASTM D5185m		4705	4619	4033
Phosphorus	ppm	ASTM D5185m		971	937	854
Zinc	ppm	ASTM D5185m		1160	1122	1005
Sulfur	ppm	ASTM D5185m		5076	5379	4622
Oxidation	Abs/.1mm	*ASTM D7414	>25	21.5	18.3	9.6
Base Number (BN)	mg KOH/g	ASTM D2896		12.95	13.69	18.01
Visc @ 100°C	cSt	ASTM D445		14.6	14.3	15.6



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : TR05957157

Lab Number : 05957157

Unique Number : 10658370

Test Package : MOB 2

Received : 20 Sep 2023

Tested : 25 Sep 2023

Diagnosed : 25 Sep 2023 - Jonathan Hester

SPRAGUE RANCH

6907 ROUTE 14

BROOKFIELD, VT

US 05036

Contact: SCOTT BURRELL

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: