



ASCENDUM

OIL ANALYSIS REPORT



Area

Ascendum Machinery/250 Hour CSA

Machine Id

JOHN DEERE 410E 1525 (S/N 886675)

Component

Diesel Engine

Fluid

VOLVO VDS-4.5 Premium Motor Oil 15W40 (--- GAL)

WEAR

NORMAL

CONTAMINATION

NORMAL

FLUID CONDITION

NORMAL

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		ASC0007937	VCP0002789	VCP0001055
Sample Date		Client Info		29 Jan 2024	02 Jan 2023	10 Mar 2022
Machine Age	hrs	Client Info		3474	3409	3396
Oil Age	hrs	Client Info		65	13	411
Filter Age	hrs	Client Info		65	0	411
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	22	19	▲ 152
Chromium	ppm	ASTM D5185m	>11	<1	<1	3
Nickel	ppm	ASTM D5185m	>5	0	<1	2
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>31	2	<1	10
Lead	ppm	ASTM D5185m	>26	0	4	25
Copper	ppm	ASTM D5185m	>26	1	<1	5
Tin	ppm	ASTM D5185m	>4	0	<1	2
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

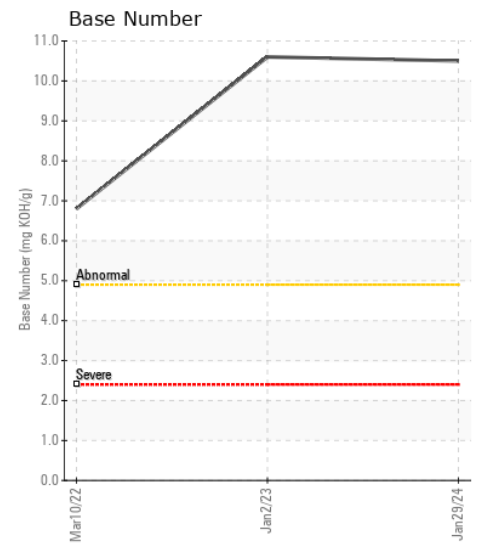
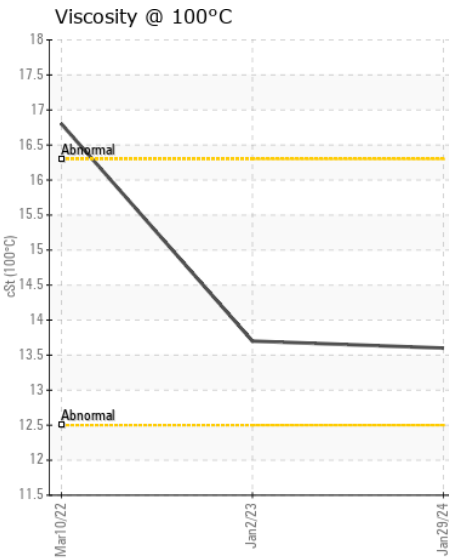
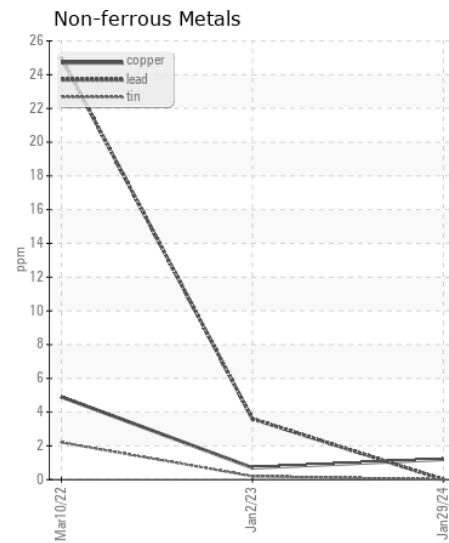
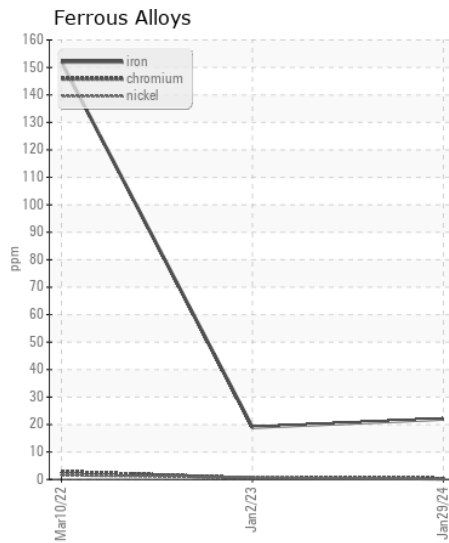
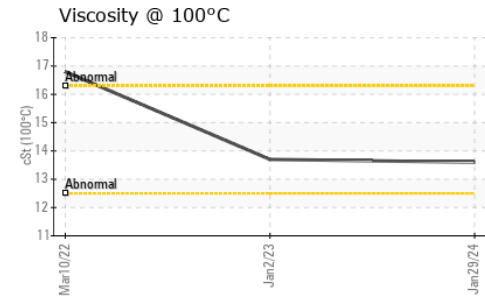
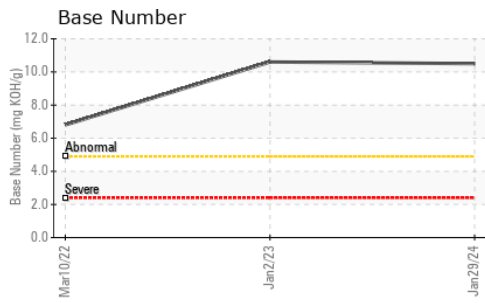
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>22	9	10	13
Potassium	ppm	ASTM D5185m	>20	0	<1	2
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	0.3	0.3	1.9
Nitration	Abs/cm	*ASTM D7624	>20	8.2	7.1	19.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.2	22.5	35.6
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	2	2	4
Boron	ppm	ASTM D5185m		61	93	37
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		43	44	67
Manganese	ppm	ASTM D5185m		<1	<1	2
Magnesium	ppm	ASTM D5185m		527	484	761
Calcium	ppm	ASTM D5185m		1803	1676	1984
Phosphorus	ppm	ASTM D5185m		974	912	1170
Zinc	ppm	ASTM D5185m		1131	1105	1494
Sulfur	ppm	ASTM D5185m		3013	3345	2767
Oxidation	Abs/.1mm	*ASTM D7414	>25	21.8	20.1	34.9
Base Number (BN)	mg KOH/g	ASTM D2896		10.5	10.6	6.8
Visc @ 100°C	cSt	ASTM D445		13.6	13.7	16.8



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : ASC0007937
Lab Number : 06101306
Unique Number : 10899536
Test Package : CONST (Additional Tests: TBN)

Received : 27 Feb 2024
Tested : 28 Feb 2024
Diagnosed : 28 Feb 2024 - Wes Davis

TRIANGLE GRADING AND PAVING INC
 1521 Huffman Mill Rd
 BURLINGTON, NC
 US 27216
 Contact: ADAM CORBETT
 wacorbett@trianglegradingpaving.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)

T:
 F: (336)584-0145