

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id

JOHN DEERE 624L 624L UNIT 6

Transmission (Manual)

Fluid TDH FLUID SAE 75W80 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

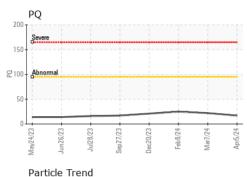
Fluid Condition

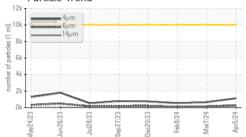
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

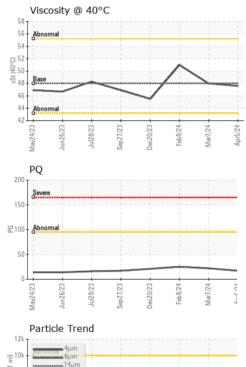
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PE0003813	PE0003832	PE0003787
Sample Date		Client Info		05 Apr 2024	07 Mar 2024	08 Feb 2024
Machine Age	hrs	Client Info		7165	6934	6721
Oil Age	hrs	Client Info		6934	6725	6299
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATION	٧	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184	>95	17	22	25
Iron	ppm	ASTM D5185m	>200	55	49	60
Chromium	ppm	ASTM D5185m	>5	0	<1	0
Nickel	ppm	ASTM D5185m	>5	0	0	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>7	0	0	<1
Aluminum	ppm	ASTM D5185m	>25	3	4	5
Lead	ppm	ASTM D5185m	>45	0	2	0
Copper	ppm	ASTM D5185m	>225	3	4	4
Tin	ppm	ASTM D5185m	>10	0	<1	<1
Vanadium	ppm	ASTM D5185m		0	<1	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 4	history1 8	history2 5
	ppm ppm					
Boron		ASTM D5185m	10	4	8	5
Boron Barium	ppm	ASTM D5185m ASTM D5185m	10 10	4 0	8	5
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	10 10	4 0 4	8 0 6	5 0 5
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	10 10 10	4 0 4 <1	8 0 6 <1	5 0 5 <1
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	10 10 10 100	4 0 4 <1 93	8 0 6 <1 98	5 0 5 <1 93
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	10 10 10 100 3500	4 0 4 <1 93 2970	8 0 6 <1 98 3045	5 0 5 <1 93 2703
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	10 10 10 100 3500 1150	4 0 4 <1 93 2970 996	8 0 6 <1 98 3045 1049	5 0 5 <1 93 2703 997
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	10 10 10 100 3500 1150	4 0 4 <1 93 2970 996 1093	8 0 6 <1 98 3045 1049 1045	5 0 5 <1 93 2703 997 1150
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	10 10 10 3500 1150 5000 limit/base	4 0 4 <1 93 2970 996 1093 3732	8 0 6 <1 98 3045 1049 1045 3985	5 0 5 <1 93 2703 997 1150 3524
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	10 10 10 3500 1150 5000 limit/base	4 0 4 <1 93 2970 996 1093 3732 current	8 0 6 <1 98 3045 1049 1045 3985 history1	5 0 5 <1 93 2703 997 1150 3524 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	10 10 10 3500 1150 1150 5000 limit/base >125	4 0 4 <1 93 2970 996 1093 3732 current 27	8 0 6 <1 98 3045 1049 1045 3985 history1 24	5 0 5 <1 93 2703 997 1150 3524 history2 34
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	10 10 10 3500 1150 1150 5000 Iinit/base >20 Iinit/base	4 0 4 <1 93 2970 996 1093 3732 current 27 0 0 0	8 0 6 3045 1049 1045 3985 history1 24 2 0 history1	5 0 5 <1 93 2703 997 1150 3524 history2 34 <1 0 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	10 10 10 3500 1150 1150 5000 Imit/base >20 Imit/base >20	4 0 4 <1 93 2970 996 1093 3732 <u>current</u> 27 0 0 0 0 <u>current</u> 1122	8 0 6 3045 1049 1045 3985 history1 24 2 2 0 history1 640	5 0 5 <1 93 2703 997 1150 3524 history2 34 <1 0 history2 543
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	10 10 10 3500 1150 1150 5000 limit/base >125 20 limit/base >20	4 0 4 <1 93 2970 996 1093 3732 current 27 0 0 0 current 1122 272	8 0 6 3045 1049 1045 3985 history1 24 2 0 history1	5 0 5 <1 93 2703 997 1150 3524 history2 34 <1 0 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	10 10 10 3500 1150 5000 binit/base >125 20 binit/base >20 binit/base >200 2500 >2500 >320	4 0 4 <1 93 2970 996 1093 3732 current 27 0 0 0 0 current 1122 272 30	8 0 6 3045 1049 1045 3985 history1 24 2 2 0 history1 640 138 16	5 0 5 <1 93 2703 997 1150 3524 history2 34 <1 0 vistory2 543 82 7
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647	10 10 10 3500 1150 5000 binit/base >125 20 binit/base >20 binit/base >200 2500 >2500 >320	4 0 4 <1 93 2970 996 1093 3732 current 27 0 0 0 current 1122 272	8 0 6 3045 1049 1045 3985 history1 24 24 2 0 history1 640 138	5 0 5 <1 93 2703 997 1150 3524 history2 34 <1 0 history2 543 82
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >5µm Particles >21µm Particles >38µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	10 10 10 3500 1150 1150 5000 Iinit/base >125 20 Iinit/base >10000 >2500 >320 >80 >20	4 0 4 <1 93 2970 996 1093 3732 current 27 0 0 0 0 current 1122 272 30	8 0 6 3045 1049 1045 3985 history1 24 2 2 0 history1 640 138 16	5 0 5 <1 93 2703 997 1150 3524 history2 34 <1 0 vistory2 543 82 7
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647	10 10 10 3500 1150 1150 5000 Iinit/base >125 20 Iinit/base >10000 >2500 >320 >80 >20	4 0 4 <1 93 2970 996 1093 3732 current 27 0 0 0 current 1122 272 30 6	8 0 6 3 98 3045 1049 1045 3985 history1 24 2 2 0 history1 640 138 16 7	5 0 5 <1 93 2703 997 1150 3524 history2 34 <1 0 history2 543 82 7 2

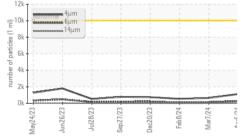


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FLUID DEGRAD	ATION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	2.25	1.09	1.17	0.89
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
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
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERT	TIES	method	limit/base	current	history1	history2

Visc @ 40°C cSt ASTM D445 48 47.6 48.0 51.0 SAMPLE IMAGES

Color

Bottom

60

40

0

Mav74/73

Mav24/73

Ał () 55 () 50

60

₹3 ₄₅

40

50/10/ml



Ferrous Alloys Particle Count 491,520 122,88 30,72 OSI -20 Feb 8/24 Mar7/24 Apr5/24 1076/73 lec20/23 Sep27/23 4406 per 1 1,920 18 1999 Cle Non-ferrous Metals 480 16 120 14 30 12 8 en77/73 ar20/72 Viscosity @ 40°C Acid Number (B/HO) Abnormal Вш Ba Acid Nu 0.0 Jul28/23 Mar7/24 Apr5/24 ul28/23 Sep27/23 Feb 8/24 Mar7/24 eb8/24 en77/33 Mav24/23 un76/73 .or5/24 1026/23 Jec20/23 Dec20/23



* - 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)

Received

Diagnosed

Tested

: 10 Apr 2024

: 11 Apr 2024

: 12 Apr 2024 - Don Baldridge

Report Id: MORDAL [WUSCAR] 06144107 (Generated: 04/12/2024 12:50:16) Rev: 1

Submitted By: ROCHELLE MENDOZA

MORNING STAR DAIRY

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