

OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



JOHN DEERE 770GP • CLATONIA 32164 (S/N 1DW770GPKLF708285) Component Diesel Engine Fluid AMERIGUARD 10W30 (30 QTS)

SAMPLE INFORMATION method

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.

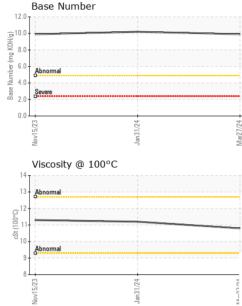
Fluid Condition

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

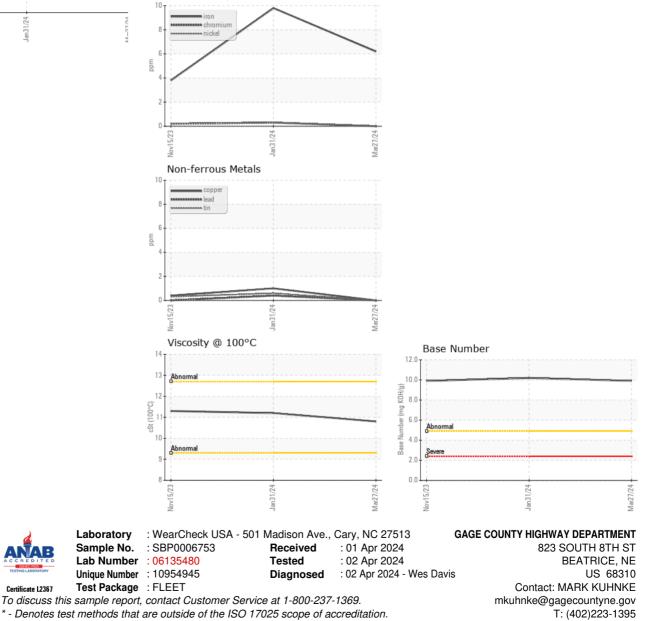
SAMPLE INFOR		method	limit/base	current	history1	history2
Sample Number		Client Info		SBP0006753	SBP0006407	SBP0005808
Sample Date		Client Info		27 Mar 2024	31 Jan 2024	15 Nov 2023
Machine Age	hrs	Client Info		3628	3376	2990
Oil Age	hrs	Client Info		252	386	260
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATIC	N	method	limit/base	current	history1	history2
Fuel		WC Method	>2.1	<1.0	<1.0	0.2
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>51	6	10	4
Chromium	ppm	ASTM D5185m	>11	0	<1	<1
Nickel	ppm	ASTM D5185m	>5	0	<1	<1
Titanium	ppm	ASTM D5185m	-	0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>31	<1	1	1
Lead	ppm	ASTM D5185m	>26	0	<1	0
Copper	ppm		>26	0	1	<1
Tin	ppm	ASTM D5185m	>4	0	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	maa	method ASTM D5185m	limit/base			
Boron	ppm ppm	ASTM D5185m	limit/base	11	27	history2 29 0
Boron Barium	ppm	ASTM D5185m ASTM D5185m	limit/base	11 0	27 0	29
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	11 0 62	27 0 47	29 0 47
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base	11 0 62 0	27 0 47 <1	29 0 47 <1
Boron Barium Molybdenum	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	11 0 62	27 0 47	29 0 47
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	11 0 62 0 973	27 0 47 <1 728 1422	29 0 47 <1 725
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	11 0 62 0 973 1242	27 0 47 <1 728	29 0 47 <1 725 1417
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	11 0 62 0 973 1242 1051	27 0 47 <1 728 1422 887	29 0 47 <1 725 1417 901
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	11 0 62 0 973 1242 1051 1239	27 0 47 <1 728 1422 887 1081	29 0 47 <1 725 1417 901 1083
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	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	limit/base	11 0 62 0 973 1242 1051 1239 3744	27 0 47 <1 728 1422 887 1081 2826	29 0 47 <1 725 1417 901 1083 2771
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT Silicon	ppm ppm ppm ppm ppm ppm ppm ppm S	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	limit/base	11 0 62 0 973 1242 1051 1239 3744 current 2	27 0 47 <1 728 1422 887 1081 2826 history1 3	29 0 47 <1 725 1417 901 1083 2771 history2 3
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm sc	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m	limit/base >22 >31	11 0 62 0 973 1242 1051 1239 3744 current 2 1	27 0 47 <1 728 1422 887 1081 2826 history1 3 1	29 0 47 <1 725 1417 901 1083 2771 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm S	ASTM D5185m ASTM D5185m	limit/base >22 >31 >20	11 0 62 0 973 1242 1051 1239 3744 current 2 1 0	27 0 47 <1 728 1422 887 1081 2826 history1 3 1 <1	29 0 47 <1 725 1417 901 1083 2771 history2 3 2 0
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >22 >31 >20 limit/base	11 0 62 0 973 1242 1051 1239 3744 current 2 1 0 0	27 0 47 <1 728 1422 887 1081 2826 history1 3 1 <1 <1 history1	29 0 47 <1 725 1417 901 1083 2771 history2 3 2 0 0 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Sulfur CONTAMINANT Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm s s	ASTM D5185m ASTM D5185m	limit/base >22 >31 >20 limit/base >3	11 0 62 0 973 1242 1051 1239 3744 <i>current</i> 2 1 0 <i>current</i> 0.1	27 0 47 <1 728 1422 887 1081 2826 history1 3 1 <1 <1 history1 0.2	29 0 47 <1 725 1417 901 1083 2771 history2 3 2 0 history2 0.1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Zinc Sulfur CONTAMINANT Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm s ppm ppm	ASTM D5185m ASTM D5185m	limit/base >22 >31 >20 limit/base >3 >20	11 0 62 0 973 1242 1051 1239 3744 current 2 1 0 current 0.1 5.4	27 0 47 <1 728 1422 887 1081 2826 history1 3 1 3 1 <1 ×1 history1 0.2 5.9	29 0 47 <1 725 1417 901 1083 2771 history2 3 2 0 history2 0.1 5.3
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Sulfur CONTAMINANT Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm s s	ASTM D5185m ASTM D5185m	limit/base >22 >31 >20 limit/base >3	11 0 62 0 973 1242 1051 1239 3744 <i>current</i> 2 1 0 <i>current</i> 0.1	27 0 47 <1 728 1422 887 1081 2826 history1 3 1 <1 <1 history1 0.2	29 0 47 <1 725 1417 901 1083 2771 history2 3 2 0 history2 0.1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >22 >31 >20 limit/base >3 >20	11 0 62 0 973 1242 1051 1239 3744 current 2 1 0 current 0.1 5.4	27 0 47 <1 728 1422 887 1081 2826 history1 3 1 3 1 <1 ×1 history1 0.2 5.9	29 0 47 <1 725 1417 901 1083 2771 history2 3 2 0 history2 0.1 5.3
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	Imit/base >22 >31 >20 Imit/base >3 >20 >30	11 0 62 0 973 1242 1051 1239 3744 <u>current</u> 2 1 0 <u>current</u> 0.1 5.4 18.5	27 0 47 <1 728 1422 887 1081 2826 history1 3 1 <1 <1 0.2 5.9 20.5	29 0 47 <1 725 1417 901 1083 2771 history2 3 2 0 history2 0.1 5.3 20.4
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT Solicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm s s s ppm ppm	ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D7415	limit/base >22 >31 >20 limit/base >3 >20 >30 limit/base	11 0 62 0 973 1242 1051 1239 3744 Current 2 1 0 Current 0.1 5.4 18.5 Current	27 0 47 <1 728 1422 887 1081 2826 history1 3 1 <1 \$ 1 <1 0.2 5.9 20.5 history1	29 0 47 <1 725 1417 901 1083 2771 history2 3 2 2 0 history2 0.1 5.3 20.4 history2



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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	>0.21	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445		10.8	11.2	11.3
GRAPHS						
Ferrous Alloys						



Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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