

# **OIL ANALYSIS REPORT**

#### Sample Rating Trend

## NORMAL

# WOLVO 26308 (S/N 4V4MC9EG4FN930308)

Component **Diesel Engine** 

PETRO CANADA DURON SHP 10W30 (38 QTS)

### 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**

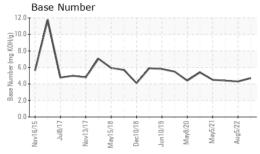
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

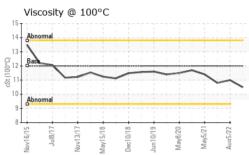


Sample Number Sample Date Machine Age Oil Age Oil Changed Sample Status CONTAMINAT	mls mls	Client Info Client Info Client Info Client Info Client Info Client Info WC Method	limit/base >6.0	PCA0092268 24 Mar 2023 436808 15844 Not Changd NORMAL current <1.0	PCA0076505 05 Aug 2022 420964 402184 Changed MARGINAL history1 <1.0	PCA0061642 15 Nov 2021 403799 0 Not Changd NORMAL history2 <1.0
Glycol		WC Method		NEG	NEG	NEG
WEAR METAL		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	49	128	53
Chromium Nickel	ppm	ASTM D5185m	>20 >2	6	1 2	<1 1
Titanium	ppm	ASTM D5185m ASTM D5185m	>2	11	6	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>25	4	7	5
Lead	ppm	ASTM D5185m	>40	1	3	2
Copper	ppm	ASTM D5185m	>330	9	11	6
Tin	ppm	ASTM D5185m	>15	<1	1	<1
Antimony	ppm	ASTM D5185m				0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES						
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	method ASTM D5185m	limit/base	current 3	history1 5	history2 2
	ppm		2			
Boron		ASTM D5185m	2 0 50	3 0 51	5 0 55	2
Boron Barium Molybdenum Manganese	ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0	3 0 51 1	5 0 55 2	2 0 55 <1
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950	3 0 51 1 799	5 0 55 2 790	2 0 55 <1 829
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050	3 0 51 1 799 1158	5 0 55 2 790 1112	2 0 55 <1 829 991
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	2 0 50 0 950 1050 995	3 0 51 1 799 1158 957	5 0 55 2 790 1112 955	2 0 55 <1 829 991 868
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180	3 0 51 1 799 1158 957 1179	5 0 55 2 790 1112 955 1173	2 0 55 <1 829 991 868 1094
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	2 0 50 0 950 1050 995 1180 2600	3 0 51 1 799 1158 957 1179 2578	5 0 55 2 790 1112 955 1173 2597	2 0 55 <1 829 991 868 1094 2010
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180	3 0 51 1 799 1158 957 1179 2578	5 0 55 2 790 1112 955 1173 2597 history1	2 0 55 <1 829 991 868 1094 2010
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base >25	3 0 51 1 799 1158 957 1179 2578	5 0 55 2 790 1112 955 1173 2597 history1	2 0 55 <1 829 991 868 1094 2010 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base	3 0 51 1 799 1158 957 1179 2578 current 12	5 0 55 2 790 1112 955 1173 2597 history1	2 0 55 <1 829 991 868 1094 2010 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base >25	3 0 51 1 799 1158 957 1179 2578 current 12 2	5 0 55 2 790 1112 955 1173 2597 history1 9 2	2 0 55 <1 829 991 868 1094 2010 history2 5 3
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base	3 0 51 1 799 1158 957 1179 2578 current 12 2 3	5 0 55 2 790 1112 955 1173 2597 history1 9 2 5	2 0 55 <1 829 991 868 1094 2010 history2 5 3 0
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm	ASTM D5185m  method  *ASTM D5185m  ASTM D5185m  ASTM D5185m  ASTM D5185m  ASTM D5185m  ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base >25 >20	3 0 51 1 799 1158 957 1179 2578 current 12 2 3 current	5 0 55 2 790 1112 955 1173 2597 history1 9 2 5 history1 1.5	2 0 55 <1 829 991 868 1094 2010 history2 5 3 0 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm	ASTM D5185m  method  *ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base >25 >20	3 0 51 1 799 1158 957 1179 2578 current 12 2 3 current 0.7 10.8	5 0 55 2 790 1112 955 1173 2597 history1 9 2 5 history1 1.5 15.2	2 0 55 <1 829 991 868 1094 2010 history2 5 3 0 history2 1.1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm	ASTM D5185m  method  *ASTM D5185m  *ASTM D5185m  *ASTM D5185m  *ASTM D5185m  *ASTM D5185m  *ASTM D5185m  *ASTM D7844  *ASTM D7624  *ASTM D7415	2 0 50 0 950 1050 995 1180 2600 limit/base >25 >20	3 0 51 1 799 1158 957 1179 2578 current 12 2 3 current	5 0 55 2 790 1112 955 1173 2597 history1 9 2 5 history1 1.5	2 0 55 <1 829 991 868 1094 2010 history2 5 3 0 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm	ASTM D5185m  method  *ASTM D5185m  *ASTM D5185m  *ASTM D5185m  *ASTM D5185m  *ASTM D5185m  *ASTM D5185m  *ASTM D7844  *ASTM D7624  *ASTM D7415	2 0 50 0 950 1050 995 1180 2600 limit/base >25 >20	3 0 51 1 799 1158 957 1179 2578 current 12 2 3 current 0.7 10.8	5 0 55 2 790 1112 955 1173 2597 history1 9 2 5 history1 1.5 15.2	2 0 55 <1 829 991 868 1094 2010 history2 5 3 0 history2 1.1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm	ASTM D5185m  method  *ASTM D5185m  *ASTM D5185m  *ASTM D5185m  *ASTM D5185m  *ASTM D5185m  *ASTM D5185m  *ASTM D7844  *ASTM D7624  *ASTM D7415	2 0 50 0 950 1050 995 1180 2600 limit/base >25 >20 	3 0 51 1 799 1158 957 1179 2578 current 12 2 3 current 0.7 10.8 22.1	5 0 55 2 790 1112 955 1173 2597 history1 9 2 5 history1 1.5 15.2 28.6	2 0 55 <1 829 991 868 1094 2010 history2 5 3 0 history2 1.1 11.6 24



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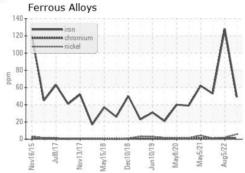


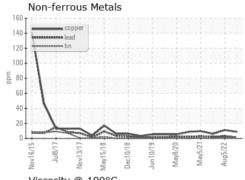


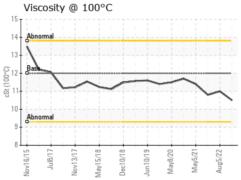
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
<b>Emulsified Water</b>	scalar	*Visual	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG

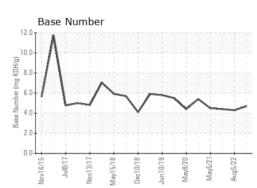
FLUID PROPERTIES		method				history2
Visc @ 100°C	cSt	ASTM D445	12.00	10.5	11.0	10.8

#### **GRAPHS**













Certificate L2367

Test Package : FLEET

Laboratory Sample No. Lab Number Unique Number : 10615995

: PCA0092268 : 05930724

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 22 Aug 2023 Diagnosed : 23 Aug 2023 Diagnostician : Don Baldridge

8634 E NEWTON RD BRIDGEVILLE, DE US 19933

**PERDUE FARMS - BRIDGEVILLE** 

Contact: GEORGE LACATES

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)

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