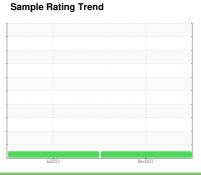


OIL ANALYSIS REPORT

(AU683W) Supermarket - Tractor FREIGHTLINER 107A1844

Component **Diesel Engine**

PETRO CANADA DURON SHP 10W30 (11 GAL)





DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

There is no indication of any contamination in the

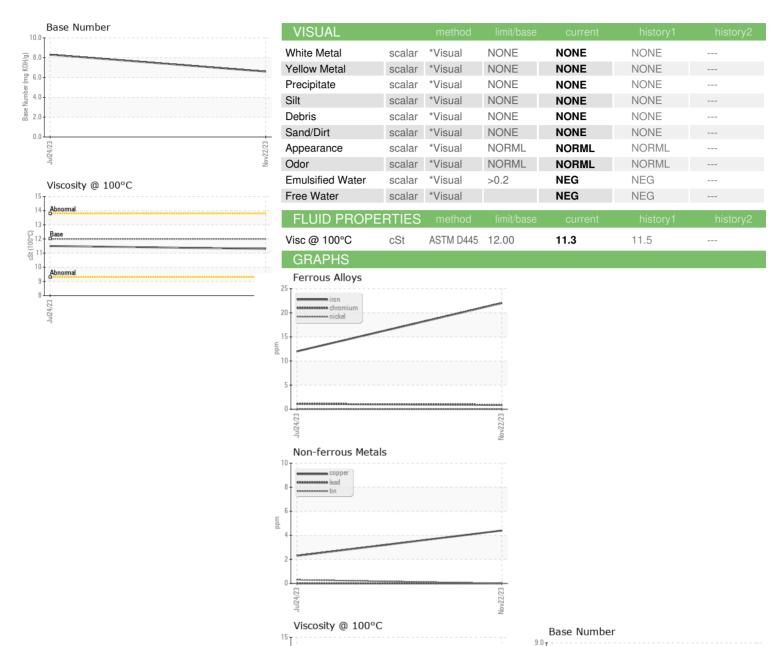
Fluid Condition

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

SAMPLE INFORMATION method	GAL)			Jul2023	Nov2023		
Sample Date Client Info 22 Nov 2023 24 Jul 2023	SAMPLE INFOR	RMATION	method	limit/base	current	history1	history2
Sample Date Client Info 22 Nov 2023 24 Jul 2023	Sample Number		Client Info		PCA0110987	PCA0099849	
Machine Age mls Client Info 224786 212786 Oil Age mls Client Info Changed Not Changed			Client Info		22 Nov 2023	24 Jul 2023	
Oil Age mls Client Info 26932 14932		mls	Client Info		224786	212786	
Sample Status		mls	Client Info		26932	14932	
Sample Status	Oil Changed		Client Info		Changed	Not Changd	
Fuel	Sample Status				NORMAL	NORMAL	
Water WC Method >0.2 NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >80 22 12 Chromium ppm ASTM D5185m >5 <1	CONTAMINA	TION	method	limit/base	current	history1	history2
WEAR METALS	Fuel		WC Method	>5	<1.0	<1.0	
WEAR METALS	Water		WC Method	>0.2	NEG	NEG	
Iron	Glycol		WC Method		NEG	NEG	
Chromium ppm ASTM D5185m >5 <1 1 Nickel ppm ASTM D5185m >2 0 0 Titanium ppm ASTM D5185m >2 0 0 Silver ppm ASTM D5185m >30 10 8 Aluminum ppm ASTM D5185m >30 0 0 Aluminum ppm ASTM D5185m >30 0 0 Lead ppm ASTM D5185m >30 0 0 Copper ppm ASTM D5185m >5 0 <1	WEAR METAI	LS	method	limit/base	current	history1	history2
Nickel	Iron	ppm	ASTM D5185m	>80	22	12	
Titanium	Chromium	ppm	ASTM D5185m	>5	<1	1	
Silver	Nickel	ppm	ASTM D5185m	>2	0	0	
Aluminum ppm ASTM D5185m >30 10 8 Lead ppm ASTM D5185m >30 0 0 Copper ppm ASTM D5185m >150 4 2 Tin ppm ASTM D5185m >5 0 <1	Titanium	ppm	ASTM D5185m		0	0	
Lead ppm ASTM D5185m >30 0 0	Silver	ppm	ASTM D5185m	>3	0	0	
Copper ppm ASTM D5185m >150 4 2 Tin ppm ASTM D5185m >5 0 <1	Aluminum	ppm	ASTM D5185m	>30	10	8	
Tin ppm ASTM D5185m >5 0 <1 Vanadium ppm ASTM D5185m 0 0 Cadmium ppm ASTM D5185m 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 2 2 6 Barium ppm ASTM D5185m 0 3 2 Molybdenum ppm ASTM D5185m 50 70 70 Manganese ppm ASTM D5185m 0 0 <1 Magnesium ppm ASTM D5185m 950 894 1038 Calcium ppm ASTM D5185m 950 1058 1214 Phosphorus ppm ASTM D5185m 995 992 1118 Sulfur ppm ASTM D5185m 2600 2874 3867	Lead	ppm	ASTM D5185m	>30	0	0	
Vanadium ppm ASTM D5185m 0 0 Cadmium ppm ASTM D5185m 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 2 2 6 Barium ppm ASTM D5185m 0 3 2 Molybdenum ppm ASTM D5185m 50 70 70 Manganese ppm ASTM D5185m 950 894 1038 Magnesium ppm ASTM D5185m 950 894 1038 Calcium ppm ASTM D5185m 950 1058 1214 Phosphorus ppm ASTM D5185m 995 992 1118 Zinc ppm ASTM D5185m 2600 2874 3867 CONTAMINANTS method limit/base current history1	Copper	ppm	ASTM D5185m	>150	4	2	
Cadmium ppm ASTM D5185m 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 2 2 6 Barium ppm ASTM D5185m 0 3 2 Molybdenum ppm ASTM D5185m 50 70 70 Magnese ppm ASTM D5185m 0 0 <1	Tin	ppm	ASTM D5185m	>5	0	<1	
ADDITIVES	Vanadium	ppm	ASTM D5185m		0	0	
Boron ppm ASTM D5185m 2 2 6 Barium ppm ASTM D5185m 0 3 2 Molybdenum ppm ASTM D5185m 50 70 70 Manganese ppm ASTM D5185m 0 0 <1	Cadmium	ppm	ASTM D5185m		0	0	
Barium	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 50 70 70 Manganese ppm ASTM D5185m 0 0 <1	Boron	ppm	ASTM D5185m	2	2	6	
Manganese ppm ASTM D5185m 0 0 <1 Magnesium ppm ASTM D5185m 950 894 1038 Calcium ppm ASTM D5185m 1050 1058 1214 Phosphorus ppm ASTM D5185m 995 992 1118 Zinc ppm ASTM D5185m 1180 1192 1380 Sulfur ppm ASTM D5185m 2600 2874 3867 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 6 5 Sodium ppm ASTM D5185m >20 6 3 Potassium ppm ASTM D5185m >20 6 3 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7624 <t< td=""><td>Barium</td><td>ppm</td><td>ASTM D5185m</td><td>0</td><th>3</th><td>2</td><td></td></t<>	Barium	ppm	ASTM D5185m	0	3	2	
Magnesium ppm ASTM D5185m 950 894 1038 Calcium ppm ASTM D5185m 1050 1058 1214 Phosphorus ppm ASTM D5185m 995 992 1118 Zinc ppm ASTM D5185m 1180 1192 1380 Sulfur ppm ASTM D5185m 2600 2874 3867 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 6 5 Sodium ppm ASTM D5185m >20 6 3 Potassium ppm ASTM D5185m >20 6 3 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7624 >20 8.8 7.7 Sulfation Abs/.1mm *ASTM D7414	Molybdenum	ppm	ASTM D5185m	50	70	70	
Calcium ppm ASTM D5185m 1050 1058 1214 Phosphorus ppm ASTM D5185m 995 992 1118 Zinc ppm ASTM D5185m 1180 1192 1380 Sulfur ppm ASTM D5185m 2600 2874 3867 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 6 5 Sodium ppm ASTM D5185m >20 6 3 Potassium ppm ASTM D5185m >20 6 3 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 1 0.6 Nitration Abs/.1mm *ASTM D7415 >30 21.3 19.0 FLUID DEGRADATION *ASTM D7414 >25	Manganese	ppm	ASTM D5185m	0	0	<1	
Phosphorus ppm ASTM D5185m 995 992 1118 Zinc ppm ASTM D5185m 1180 1192 1380 Sulfur ppm ASTM D5185m 2600 2874 3867 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 6 5 Sodium ppm ASTM D5185m >20 6 3 Potassium ppm ASTM D5185m >20 6 3 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 1 0.6 Nitration Abs/cm *ASTM D7414 >20 8.8 7.7 Sulfation Abs/.1mm *ASTM D7415 >30 21.3 19.0 FLUID DEGRADATION **ASTM D7414	Magnesium	ppm	ASTM D5185m	950	894	1038	
Zinc ppm ASTM D5185m 1180 1192 1380 Sulfur ppm ASTM D5185m 2600 2874 3867 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 6 5 Sodium ppm ASTM D5185m 0 2 Potassium ppm ASTM D5185m >20 6 3 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 1 0.6 Nitration Abs/cm *ASTM D7624 >20 8.8 7.7 Sulfation Abs/.1mm *ASTM D7415 >30 21.3 19.0 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414	Calcium	ppm	ASTM D5185m	1050	1058	1214	
Sulfur ppm ASTM D5185m 2600 2874 3867 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 6 5 Sodium ppm ASTM D5185m 0 2 Potassium ppm ASTM D5185m >20 6 3 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 1 0.6 Nitration Abs/cm *ASTM D7624 >20 8.8 7.7 Sulfation Abs/.1mm *ASTM D7415 >30 21.3 19.0 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.4 14.3	Phosphorus	ppm	ASTM D5185m	995	992	1118	
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 6 5 Sodium ppm ASTM D5185m 0 2 Potassium ppm ASTM D5185m >20 6 3 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 1 0.6 Nitration Abs/cm *ASTM D7624 >20 8.8 7.7 Sulfation Abs/.1mm *ASTM D7415 >30 21.3 19.0 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.4 14.3	Zinc	ppm	ASTM D5185m	1180	1192	1380	
Silicon ppm ASTM D5185m >20 6 5 Sodium ppm ASTM D5185m 0 2 Potassium ppm ASTM D5185m >20 6 3 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 1 0.6 Nitration Abs/cm *ASTM D7624 >20 8.8 7.7 Sulfation Abs/.1mm *ASTM D7415 >30 21.3 19.0 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.4 14.3			ASTM D5185m	2600	2874	3867	
Sodium ppm ASTM D5185m 0 2 Potassium ppm ASTM D5185m >20 6 3 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 1 0.6 Nitration Abs/cm *ASTM D7624 >20 8.8 7.7 Sulfation Abs/.1mm *ASTM D7415 >30 21.3 19.0 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.4 14.3	CONTAMINA	NTS	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 6 3 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 1 0.6 Nitration Abs/cm *ASTM D7624 >20 8.8 7.7 Sulfation Abs/.1mm *ASTM D7415 >30 21.3 19.0 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.4 14.3	Silicon	ppm	ASTM D5185m	>20	6	5	
INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 1 0.6 Nitration Abs/cm *ASTM D7624 >20 8.8 7.7 Sulfation Abs/.1mm *ASTM D7415 >30 21.3 19.0 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.4 14.3	Sodium	ppm	ASTM D5185m		0	2	
Soot % % *ASTM D7844 >3 1 0.6 Nitration Abs/cm *ASTM D7624 >20 8.8 7.7 Sulfation Abs/.1mm *ASTM D7415 >30 21.3 19.0 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.4 14.3	Potassium	ppm	ASTM D5185m	>20	6	3	
Nitration Abs/cm *ASTM D7624 >20 8.8 7.7 Sulfation Abs/.1mm *ASTM D7415 >30 21.3 19.0 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.4 14.3	INFRA-RED		method	limit/base	current	history1	history2
Sulfation Abs/.1mm *ASTM D7415 >30 21.3 19.0 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.4 14.3	Soot %	%	*ASTM D7844	>3	1	0.6	
FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.4 14.3	Nitration	Abs/cm	*ASTM D7624	>20	8.8	7.7	
Oxidation	Sulfation	Abs/.1mm	*ASTM D7415	>30	21.3	19.0	
	FLUID DEGRA	NOITAD	method	limit/base	current	history1	history2
	Oxidation	Abs/.1mm	*ASTM D7414	>25	16.4	14.3	
	Base Number (BN)	mg KOH/g	ASTM D2896		6.6	8.3	



OIL ANALYSIS REPORT







Certificate L2367

Laboratory Sample No. Lab Number Unique Number Test Package : FLEET

: PCA0110987 : 06028474 : 10778265

cSt (100°C)

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 07 Dec 2023 : 09 Dec 2023

Diagnosed : Wes Davis Diagnostician

(B/T.0 (B/HO) 6.0

£ 5.0 후 4.0 2.0 1.0 0.0

> Transervice - Shop 1071 - Supermarket-Dayton 60 A Tower Road

Dayton, NJ US 08810 Contact: Brian Quinn

bquinn@transervice.com

T: F:

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)