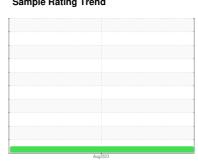


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



338750

Component **Diesel Engine**

PETRO CANADA DURON SHP 10W30 (--- 0

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Metal levels are typical for a components first oil change.

Contamination

There is no indication of any contamination in the

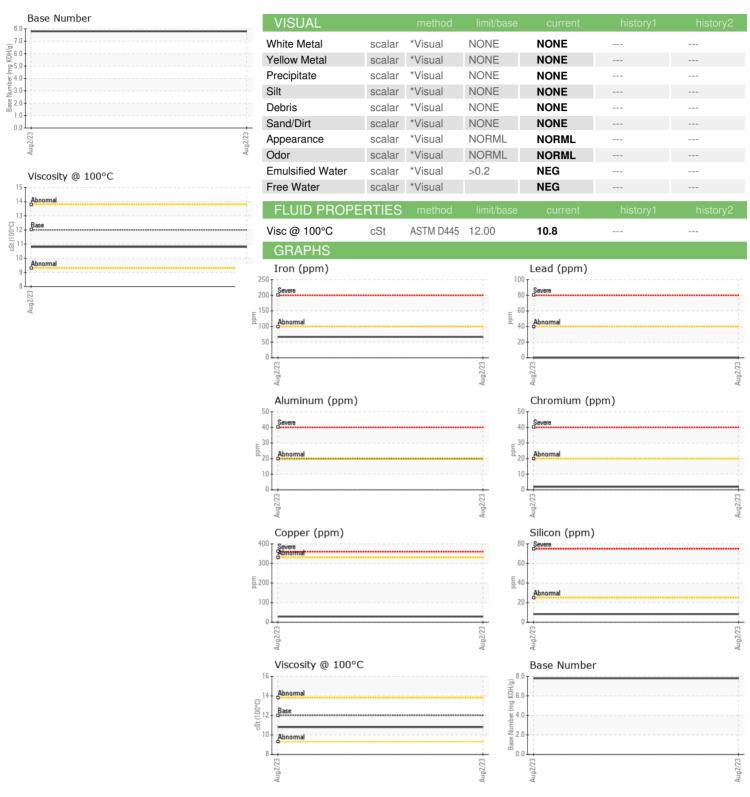
Fluid Condition

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

Machine Age mls Client Info 36289 Oil Age mls Client Info 36289 Oil Changed Client Info Changed Sample Status NORMAL CONTAMINATION method limit/base current history1 history2 Fuel WC Method S <1.0 Glycol WC Method NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >100 67 Iron ppm ASTM D5185m >20 2 Chronium ppm ASTM D5185m >3 0 Silver ppm ASTM D5185m >20 20 Silver ppm ASTM D5185m >20 20 <th>NTS)</th> <th></th> <th></th> <th></th> <th>Aug 2023</th> <th></th> <th></th>	NTS)				Aug 2023		
Sample Date Client Info 02 Aug 2023	SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Machine Age mls Client Info 36289 Oil Age mls Client Info 36289 Oil Changed Client Info Changed Sample Status NORMAL CONTAMINATION method limit/bass current history1 history2 Fuel WC Method >5 <1.0	Sample Number		Client Info		PCA0097392		
Oil Age	Sample Date		Client Info		02 Aug 2023		
Client Info Changed Client Info Changed NORMAL	Machine Age	mls	Client Info		36289		
CONTAMINATION	Oil Age	mls	Client Info		36289		
CONTAMINATION method limit/base current history1 history2 Fuel WC Method >5 <1.0	Oil Changed		Client Info		Changed		
Fuel WC Method S	Sample Status				NORMAL		
WEAR METALS	CONTAMINAT	ION	method	limit/base	current	history1	history2
WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >100 67 Chromium ppm ASTM D5185m >20 2 Nickel ppm ASTM D5185m >4 <1	Fuel		WC Method	>5	<1.0		
Irron	Glycol		WC Method		NEG		
Chromium ppm ASTM D5185m >20 2 Nickel ppm ASTM D5185m >4 <1 Titanium ppm ASTM D5185m >4 <1 Silver ppm ASTM D5185m >3 0 Aluminum ppm ASTM D5185m >20 20 Lead ppm ASTM D5185m >40 0 Lead ppm ASTM D5185m >40 0 Copper ppm ASTM D5185m >40 0 Copper ppm ASTM D5185m >40 0 Cadmium ppm ASTM D5185m >15 3 Vanadium ppm ASTM D5185m >15 3 Cadmium ppm ASTM D5185m 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 1 Molybdenum ppm ASTM D5185m 50 53 Manganese ppm ASTM D5185m 50 53 Magnesium ppm ASTM D5185m 50 53 Magnesium ppm ASTM D5185m 950 685 Calcium ppm ASTM D5185m 995 685 Calcium ppm ASTM D5185m 995 854 Phosphorus ppm ASTM D5185m 2600 2893 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 8 CONTAMINANTS method limit/base current history1 history2 Soci % ASTM D5185m >20 36 INFRA-RED method limit/base current history1 history2 Soci % ASTM D7844 >3 0.6 FLUID DEGRADATION method limit/base current history1 history2 Coxidation Abs/.1mm ASTM D7415 >30 24.2	WEAR METAL	S	method	limit/base	current	history1	history2
Nickel	Iron	ppm	ASTM D5185m	>100	67		
Nickel	Chromium		ASTM D5185m	>20	2		
Silver	Nickel	ppm	ASTM D5185m	>4	<1		
Aluminum	Titanium	ppm	ASTM D5185m		4		
Lead ppm ASTM D5185m >40 0 Copper ppm ASTM D5185m >330 29 Tin ppm ASTM D5185m >15 3 Vanadium ppm ASTM D5185m <1	Silver	ppm	ASTM D5185m	>3	0		
Copper ppm ASTM D5185m >330 29 Tin ppm ASTM D5185m >15 3 Vanadium ppm ASTM D5185m 0 Cadmium ppm ASTM D5185m 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 1 Barium ppm ASTM D5185m 0 1 Molybdenum ppm ASTM D5185m 50 53 Manganese ppm ASTM D5185m 0 9 Magnesium ppm ASTM D5185m 950 685 Calcium ppm ASTM D5185m 995 854 Zinc ppm ASTM D5185m 2600 2893	Aluminum	ppm	ASTM D5185m	>20	20		
Tin	Lead	ppm	ASTM D5185m	>40	0		
Vanadium ppm ASTM D5185m <1 Cadmium ppm ASTM D5185m 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 2 18 Barium ppm ASTM D5185m 0 1 Molybdenum ppm ASTM D5185m 50 53 Manganese ppm ASTM D5185m 0 9 Magnesium ppm ASTM D5185m 950 685 Calcium ppm ASTM D5185m 950 685 Zinc ppm ASTM D5185m 1050 1614 Phosphorus ppm ASTM D5185m 2600 2893 Sulfur ppm ASTM D5185m 2600 2893 <th< td=""><td>Copper</td><td>ppm</td><td>ASTM D5185m</td><td>>330</td><td>29</td><td></td><td></td></th<>	Copper	ppm	ASTM D5185m	>330	29		
Cadmium ppm ASTM D5185m 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 2 18 Barium ppm ASTM D5185m 0 1 Molybdenum ppm ASTM D5185m 50 53 Manganese ppm ASTM D5185m 0 9 Magnesium ppm ASTM D5185m 950 685 Calcium ppm ASTM D5185m 995 854 Phosphorus ppm ASTM D5185m 995 854 Zinc ppm ASTM D5185m 2600 2893 Sulfur ppm ASTM D5185m 225 8 CONTAMINANTS method limit/base current	Tin	ppm	ASTM D5185m	>15	3		
ADDITIVES	Vanadium	ppm	ASTM D5185m		<1		
Boron	Cadmium	ppm	ASTM D5185m		0		
Barium	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 50 53 Manganese ppm ASTM D5185m 0 9 Magnesium ppm ASTM D5185m 950 685 Calcium ppm ASTM D5185m 1050 1614 Phosphorus ppm ASTM D5185m 995 854 Zinc ppm ASTM D5185m 995 854 Sulfur ppm ASTM D5185m 2600 2893 Sulfur ppm ASTM D5185m 2600 2893 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 8 Sodium ppm ASTM D5185m >20 36 Potassium ppm ASTM	Boron	ppm	ASTM D5185m	2	18		
Manganese ppm ASTM D5185m 0 9 Magnesium ppm ASTM D5185m 950 685 Calcium ppm ASTM D5185m 1050 1614 Phosphorus ppm ASTM D5185m 995 854 Zinc ppm ASTM D5185m 2600 2893 Sulfur ppm ASTM D5185m 2600 2893 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 8 Sodium ppm ASTM D5185m >20 36 Potassium ppm ASTM D5185m >20 36 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844	Barium	ppm	ASTM D5185m	0	1		
Magnesium ppm ASTM D5185m 950 685 Calcium ppm ASTM D5185m 1050 1614 Phosphorus ppm ASTM D5185m 995 854 Zinc ppm ASTM D5185m 1180 1153 Sulfur ppm ASTM D5185m 2600 2893 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 8 Sodium ppm ASTM D5185m 4 Potassium ppm ASTM D5185m >20 36 INFRA-RED method limit/base current history1 history2 Soot % % ASTM D7844 >3 0.6 Nitration Abs/cm *ASTM D7415 >30 24.2 <td>Molybdenum</td> <td>ppm</td> <td>ASTM D5185m</td> <td>50</td> <td>53</td> <td></td> <td></td>	Molybdenum	ppm	ASTM D5185m	50	53		
Calcium ppm ASTM D5185m 1050 1614 Phosphorus ppm ASTM D5185m 995 854 Zinc ppm ASTM D5185m 1180 1153 Sulfur ppm ASTM D5185m 2600 2893 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 8 Sodium ppm ASTM D5185m >20 36 Potassium ppm ASTM D5185m >20 36 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.6 Sulfation Abs/.1mm *ASTM D7415 >30 24.2 FLUID DEGRADATION method lim	Manganese	ppm	ASTM D5185m	0	9		
Phosphorus ppm ASTM D5185m 995 854 Zinc ppm ASTM D5185m 1180 1153 Sulfur ppm ASTM D5185m 2600 2893 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 8 Sodium ppm ASTM D5185m >20 36 Potassium ppm ASTM D5185m >20 36 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.6 Nitration Abs/cm *ASTM D7624 >20 12.5 Sulfation Abs/.1mm *ASTM D7415 >30 24.2 FLUID DEGRADATION "ASTM D7414	Magnesium	ppm	ASTM D5185m	950	685		
Zinc ppm ASTM D5185m 1180 1153 Sulfur ppm ASTM D5185m 2600 2893 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 8 Sodium ppm ASTM D5185m >20 36 Potassium ppm ASTM D5185m >20 36 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.6 Nitration Abs/cm *ASTM D7624 >20 12.5 Sulfation Abs/.1mm *ASTM D7415 >30 24.2 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *AS	Calcium	ppm	ASTM D5185m	1050	1614		
Sulfur ppm ASTM D5185m 2600 2893 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 8 Sodium ppm ASTM D5185m >20 36 Potassium ppm ASTM D5185m >20 36 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.6 Nitration Abs/cm *ASTM D7624 >20 12.5 Sulfation Abs/.1mm *ASTM D7415 >30 24.2 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 24.4	Phosphorus	ppm	ASTM D5185m	995	854		
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 8 Sodium ppm ASTM D5185m 4 Potassium ppm ASTM D5185m >20 36 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.6 Nitration Abs/cm *ASTM D7624 >20 12.5 Sulfation Abs/.1mm *ASTM D7415 >30 24.2 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 24.4	Zinc	ppm	ASTM D5185m	1180	1153		
Silicon ppm ASTM D5185m >25 8 Sodium ppm ASTM D5185m 4 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.6 Nitration Abs/cm *ASTM D7624 >20 12.5 Sulfation Abs/.1mm *ASTM D7415 >30 24.2 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 24.4	Sulfur	ppm	ASTM D5185m	2600	2893		
Sodium ppm ASTM D5185m 4 Potassium ppm ASTM D5185m >20 36 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.6 Nitration Abs/cm *ASTM D7624 >20 12.5 Sulfation Abs/.1mm *ASTM D7415 >30 24.2 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 24.4	CONTAMINAN	ITS	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 36 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.6 Nitration Abs/cm *ASTM D7624 >20 12.5 Sulfation Abs/.1mm *ASTM D7415 >30 24.2 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 24.4	Silicon	ppm	ASTM D5185m	>25	8		
INFRA-RED	Sodium	ppm	ASTM D5185m		4		
Soot % % *ASTM D7844 >3 0.6 Nitration Abs/cm *ASTM D7624 >20 12.5 Sulfation Abs/.1mm *ASTM D7415 >30 24.2 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 24.4	Potassium	ppm	ASTM D5185m	>20	36		
Nitration Abs/cm *ASTM D7624 >20 12.5 Sulfation Abs/.1mm *ASTM D7415 >30 24.2 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 24.4	INFRA-RED		method	limit/base	current	history1	history2
Sulfation Abs/.1mm *ASTM D7415 >30 24.2 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 24.4	Soot %	%	*ASTM D7844	>3	0.6		
FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 24.4	Nitration	Abs/cm	*ASTM D7624	>20	12.5		
Oxidation	Sulfation	Abs/.1mm	*ASTM D7415	>30	24.2		
	FLUID DEGRA	DATION	method	limit/base	current	history1	history2
Base Number (BN) mg KOH/g ASTM D2896 7.8	Oxidation	Abs/.1mm	*ASTM D7414	>25	24.4		
	Base Number (BN)				7.8		



OIL ANALYSIS REPORT







Certificate L2367

Laboratory Sample No. Lab Number **Unique Number**

: 05984525

: PCA0097392 : 10701820

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 20 Oct 2023 Diagnosed

: 20 Oct 2023

Diagnostician : Wes Davis

Test Package : MOB 1 (Additional Tests: TBN) 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)

MILLER TRUCK LEASING #123

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