

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id 599

Component **Diesel Engine**

PETRO CANADA DURON HP 15W40 (--- GA

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 new component breaking in.

Contamination

There is no indication of any contamination in the

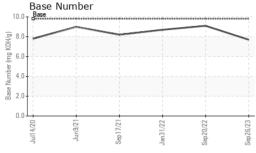
Fluid Condition

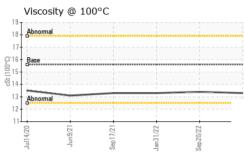
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORMATION method limit/base current history1 PCA0058438 Sample Number Client Info 26 Sep 2023 20 Sep 2022 31 Jan 2022 Sample Date Client Info 0 579 509 509 Client Info 0 0 559 Sop Colladar Sample Status Normat Norm	AL)		Jui2020	Jun2021 Sep2021	Jan2022 Sep2022	Sep2023		
Sample Date	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2	
Machine Age hrs Client Info 0 579 509 Oil Age hrs Client Info 0 0 509 Oil Changed Client Info Not Changd N/A N/A N/A Sample Status method limit/base current history1 history2 Fuel WC Method >5 <1.0 <1.0 <1.0 <1.0 Glycol WC Method NEG NEG NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >100 9 11 18 Chromium ppm ASTM D5185m >20 <1 <1 11 Nickel ppm ASTM D5185m >20 <1 <1 1 Nickel ppm ASTM D5185m >3 0 0 <1 Aluminum ppm ASTM D5185m >3 0 0 <1	Sample Number		Client Info		PCA0082902	PCA0069217	PCA0058438	
Oil Age hrs Client Info Not Changd N/A N/A Sample Status Client Info Not Changd N/A N/A N/A CONTAMINATION method limit/base current history1 history2 Fuel WC Method S <1.0 <1.0 <1.0 Glycol WC Method NEG NEG NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >100 9 11 18 Chromium ppm ASTM D5185m >20 <1 <1 1 Nickel ppm ASTM D5185m >20 <1 <1 1 Silver ppm ASTM D5185m >3 0 0 <1 Lead ppm ASTM D5185m >30 2 <1 1 Copper ppm ASTM D5185m >30 2 <3 3	Sample Date		Client Info		26 Sep 2023	20 Sep 2022	31 Jan 2022	
Oil Changed Sample Status	Machine Age	hrs	Client Info		0	579	509	
Sample Status	Oil Age	hrs	Client Info		0	0	509	
CONTAMINATION method limit/base current history1 history2 Fuel WC Method >5 <1.0	Oil Changed		Client Info		Not Changd	N/A	N/A	
Fuel	Sample Status				NORMAL	NORMAL	NORMAL	
WEAR METALS	CONTAMINATI	ON	method	limit/base	current	history1	history2	
WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >100 9 11 18 Chromium ppm ASTM D5185m 20 <1	Fuel		WC Method	>5	<1.0	<1.0	<1.0	
Iron	Glycol		WC Method		NEG	NEG	NEG	
Chromium ppm ASTM D5185m >20 <1 <1 1 Nickel ppm ASTM D5185m >4 <1	WEAR METALS	3	method	limit/base	current	history1	history2	
Nickel	Iron	ppm	ASTM D5185m	>100	9	11	18	
Titanium ppm ASTM D5185m 0 0 0 Silver ppm ASTM D5185m >3 0 0 <1	Chromium	ppm	ASTM D5185m	>20	<1	<1	1	
Silver	Nickel	ppm	ASTM D5185m	>4	<1	0	0	
Aluminum ppm ASTM D5185m >20 0 4 7 Lead ppm ASTM D5185m >40 2 <1	Titanium	ppm	ASTM D5185m		0	0	0	
Lead	Silver	ppm	ASTM D5185m	>3	0	0	<1	
Copper ppm ASTM D5185m >330 2 3 3 Tin ppm ASTM D5185m >15 <1	Aluminum	ppm	ASTM D5185m	>20	0	4	7	
Tin ppm ASTM D5185m >15 <1 <1 <1 <1 Antimony ppm ASTM D5185m Vanadium ppm ASTM D5185m 0 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m <1 5 7 Barium ppm ASTM D5185m 60 62 63 Molybdenum ppm ASTM D5185m 60 62 63 Manganese ppm ASTM D5185m 856 927 980 Calcium ppm ASTM D5185m 1029 1139 1185 Phosphorus ppm ASTM D5185m 965 997 1100 Zinc ppm ASTM D5185m 2805 3468 2838 CONTAMINANTS method <td>Lead</td> <td>ppm</td> <td>ASTM D5185m</td> <td>>40</td> <th>2</th> <td><1</td> <td>1</td>	Lead	ppm	ASTM D5185m	>40	2	<1	1	
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ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m <1	Vanadium	ppm			0	0		
Boron		ppm	ASTM D5185m		0	0	0	
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Nitration Abs/cm *ASTM D7624 >20 7.2 8.6 7.9 Sulfation Abs/.1mm *ASTM D7415 >30 19.2 21.6 20.3 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 15.2 17.4 16.3	INFRA-RED			limit/base				
Sulfation Abs/.1mm *ASTM D7415 >30 19.2 21.6 20.3 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 15.2 17.4 16.3								
FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 15.2 17.4 16.3								
Oxidation Abs/.1mm *ASTM D7414 >25 15.2 17.4 16.3				>30	19.2	21.6	20.3	
	FLUID DEGRAD	ATION	method	limit/base	current	history1	history2	
Base Number (BN) mg KOH/g ASTM D2896 9.8 7.7 9.1 8.7	Oxidation	Abs/.1mm	*ASTM D7414	>25	15.2	17.4	16.3	
	Base Number (BN)	mg KOH/g	ASTM D2896	9.8	7.7	9.1	8.7	



OIL ANALYSIS REPORT

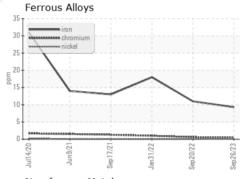


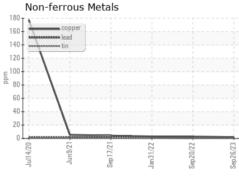


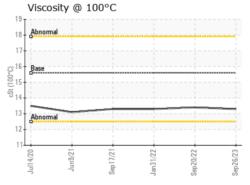
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual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

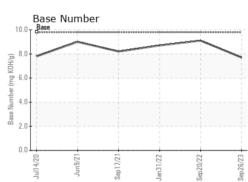
FLUID PROPERTIES		method				history2	
Visc @ 100°C	cSt	ASTM D445	15.6	13.3	13.4	13.3	

GRAPHS













Certificate L2367

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

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : 05979432 : 10696727

: PCA0082902

Received : 16 Oct 2023 Diagnosed : 17 Oct 2023 Diagnostician : Wes Davis

AVR - APPLE VALLEY READY MIX 14698 GALAXY AVE

APPLE VALLEY, MN US 55124 Contact: senia zimmer

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T: (952)953-2992 F: (952)953-2994

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)