

OIL ANALYSIS REPORT

Sample Rating Trend





Machine Id 914057 Component **Diesel Engine**

PETRO CANADA DURON SHP 15W40 (25 GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Metal levels are typical for a new component breaking in.

Contamination

There is no indication of any contamination in the

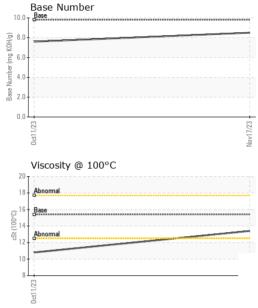
Fluid Condition

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

Sample Number Client Info GFL0101595 GFL0093224	N SHP 15W40 (2	5 GAL)		Oct2023	Nov2023		
Sample Date Client Info 17 Nov 2023 11 Oct 2023	SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info 769 0 0 0 0 0 0 0 0 0	Sample Number		Client Info		GFL0101595	GFL0093224	
Dil Age	•		Client Info		17 Nov 2023	11 Oct 2023	
Contamped Client Info Not Changed NORMAL ATTENTION Contample Status Client Info Normal ATTENTION Contample Status Contample	Machine Age	hrs	Client Info		930	769	
CONTAMINATION method minit/base current history1 history1 history2 history3 history3 history3 history3 history3 history3 history3 history3 history3 history4 history4 history4 history4 history4 history4 history5 history5 history5 history8 history8 history9 histo	Oil Age	hrs	Client Info		769	0	
CONTAMINATION	Oil Changed		Client Info		Not Changd	Changed	
Fuel	Sample Status				NORMAL	ATTENTION	
Water WC Method NEG NE	CONTAMINAT	ION	method	limit/base	current	history1	history2
WEAR METALS	Fuel		WC Method	>3.0	<1.0	0.3	
WEAR METALS method limit/base current history1 history1 ron ppm ASTM D5185m >120 13 44 Chromium ppm ASTM D5185m >20 <1	Nater		WC Method	>0.2	NEG	NEG	
Chromium	Glycol		WC Method		NEG	NEG	
Chromium	WEAR METAL	S	method	limit/base	current	history1	history2
Silver	ron	ppm	ASTM D5185m	>120	13	44	
STRING	Chromium	ppm	ASTM D5185m	>20	<1	1	
Silver	Nickel	ppm	ASTM D5185m	>5	1	3	
Aluminum	Titanium	ppm	ASTM D5185m	>2	<1	0	
December December	Silver	ppm	ASTM D5185m	>2	0	<1	
Copper	Aluminum	ppm	ASTM D5185m	>20	2	4	
Asym Asym Dsi Basin	_ead	ppm	ASTM D5185m	>40	<1	2	
Vanadium ppm ASTM D5185m 0 <1 Cadmium ppm ASTM D5185m <1 0 ADDITIVES method limit/base current history1 history Boron ppm ASTM D5185m 0 8 141 Barium ppm ASTM D5185m 0 9 0 Wolybdenum ppm ASTM D5185m 0 62 109 Wanganese ppm ASTM D5185m 0 <1 4 Magnesium ppm ASTM D5185m 1010 864 756 Calcium ppm ASTM D5185m 1070 1077 1404 Phosphorus ppm ASTM D5185m 1270 1145 902 Zinc ppm ASTM D5185m 2060 3119 2272 CONTAMINANTS method limit/base current history1 <td>Copper</td> <td>ppm</td> <td>ASTM D5185m</td> <td>>330</td> <td>29</td> <td>235</td> <td></td>	Copper	ppm	ASTM D5185m	>330	29	235	
ADDITIVES	Γin	ppm	ASTM D5185m	>15	<1	3	
ADDITIVES	√anadium	ppm	ASTM D5185m		0	<1	
Soron ppm ASTM D5185m 0 9 0 0 0 0 0 0 0 0	Cadmium	ppm	ASTM D5185m		<1	0	
Barium	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 60 62 109 Manganese ppm ASTM D5185m 0 <1	Boron	ppm	ASTM D5185m	0	8	141	
Manganese ppm ASTM D5185m 0 <1 4 Magnesium ppm ASTM D5185m 1010 864 756 Calcium ppm ASTM D5185m 1070 1077 1404 Phosphorus ppm ASTM D5185m 1150 936 761 Zinc ppm ASTM D5185m 1270 1145 902 Sulfur ppm ASTM D5185m 2060 3119 2272 CONTAMINANTS method limit/base current history1 history Solicon ppm ASTM D5185m >25 9 64 Potassium ppm ASTM D5185m 1 2 Potassium ppm ASTM D5185m >20 3 1 Potassium ppm ASTM D5185m >20 3 1 Soot % % *ASTM D7844 >4	Barium	ppm	ASTM D5185m	0	9	0	
Magnesium ppm ASTM D5185m 1010 864 756 Calcium ppm ASTM D5185m 1070 1077 1404 Phosphorus ppm ASTM D5185m 1150 936 761 Zinc ppm ASTM D5185m 1270 1145 902 Sulfur ppm ASTM D5185m 2060 3119 2272 CONTAMINANTS method limit/base current history1 history1 Silicon ppm ASTM D5185m >25 9 64 Potassium ppm ASTM D5185m >20 3 1 Potassium ppm ASTM D5185m >20 3 1 Soot % % *ASTM D7844 >4 0.3 0.6 Soot % % *ASTM D7624 >20 6.6 9.1 Sulfation Abs/.1mm *ASTM D7415 <td>Molybdenum</td> <td>ppm</td> <td>ASTM D5185m</td> <td>60</td> <td>62</td> <td></td> <td></td>	Molybdenum	ppm	ASTM D5185m	60	62		
Description	Manganese	ppm	ASTM D5185m	0	<1	4	
Phosphorus ppm ASTM D5185m 1150 936 761 Zinc ppm ASTM D5185m 1270 1145 902 Sulfur ppm ASTM D5185m 2060 3119 2272 CONTAMINANTS method limit/base current history1 history1 Silicon ppm ASTM D5185m >25 9 64 Sodium ppm ASTM D5185m 1 2 Potassium ppm ASTM D5185m >20 3 1 INFRA-RED method limit/base current history1 history1 Soot % % *ASTM D7844 >4 0.3 0.6 Sulfation Abs/.1mm *ASTM D7415 >30 19.4 22.7 FLUID DEGRADATION method limit/base current history1 history Oxidation Abs/.1mm *ASTM D7414 >25	-	ppm	ASTM D5185m				
Zinc ppm ASTM D5185m 1270 1145 902 Sulfur ppm ASTM D5185m 2060 3119 2272 CONTAMINANTS method limit/base current history1 history Silicon ppm ASTM D5185m >25 9 64 Sodium ppm ASTM D5185m 1 2 Potassium ppm ASTM D5185m >20 3 1 INFRA-RED method limit/base current history1 history Soot % *ASTM D7844 >4 0.3 0.6 Nitration Abs/cm *ASTM D7624 >20 6.6 9.1 Sulfation Abs/.1mm *ASTM D7415 >30 19.4 22.7 FLUID DEGRADATION method limit/base current history1 history Dxidation Abs/.1mm *ASTM D7414 >25 15.2 20.6	Calcium	ppm	ASTM D5185m	1070		1404	
Sulfur ppm ASTM D5185m 2060 3119 2272 CONTAMINANTS method limit/base current history1 history Silicon ppm ASTM D5185m >25 9 64 Sodium ppm ASTM D5185m 1 2 Potassium ppm ASTM D5185m >20 3 1 INFRA-RED method limit/base current history1 history Soot % % *ASTM D7844 >4 0.3 0.6 Nitration Abs/cm *ASTM D7624 >20 6.6 9.1 Full D DEGRADATION method limit/base current history1 history Dxidation Abs/.1mm *ASTM D7414 >25 15.2 20.6		ppm	ASTM D5185m				
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 9 64 Sodium ppm ASTM D5185m 1 2 Potassium ppm ASTM D5185m >20 3 1 INFRA-RED method limit/base current history1 history Soot % % *ASTM D7844 >4 0.3 0.6 Nitration Abs/cm *ASTM D7624 >20 6.6 9.1 Sulfation Abs/.1mm *ASTM D7415 >30 19.4 22.7 FLUID DEGRADATION method limit/base current history1 history Oxidation Abs/.1mm *ASTM D7414 >25 15.2 20.6	Zinc	ppm	ASTM D5185m	1270	1145	902	
Solition ppm ASTM D5185m >25 9 64			ASTM D5185m	2060	3119	2272	
Sodium	CONTAMINAN	ITS	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 3 1 INFRA-RED method limit/base current history1 history Soot % % *ASTM D7844 >4 0.3 0.6 Nitration Abs/cm *ASTM D7624 >20 6.6 9.1 Sulfation Abs/.1mm *ASTM D7415 >30 19.4 22.7 FLUID DEGRADATION method limit/base current history1 history Oxidation Abs/.1mm *ASTM D7414 >25 15.2 20.6	Silicon	ppm	ASTM D5185m	>25	9	64	
INFRA-RED		ppm	ASTM D5185m		1	2	
Soot % % *ASTM D7844 >4 0.3 0.6 Nitration Abs/cm *ASTM D7624 >20 6.6 9.1 Sulfation Abs/.1mm *ASTM D7415 >30 19.4 22.7 FLUID DEGRADATION method limit/base current history1 history Oxidation Abs/.1mm *ASTM D7414 >25 15.2 20.6	Potassium	ppm	ASTM D5185m	>20	3	1	
Nitration Abs/cm *ASTM D7624 >20 6.6 9.1 Sulfation Abs/.1mm *ASTM D7415 >30 19.4 22.7 FLUID DEGRADATION method limit/base current history1 history Oxidation Abs/.1mm *ASTM D7414 >25 15.2 20.6	INFRA-RED		method	limit/base	current	history1	history2
Sulfation Abs/.1mm *ASTM D7415 >30 19.4 22.7 FLUID DEGRADATION method limit/base current history1 history Oxidation Abs/.1mm *ASTM D7414 >25 15.2 20.6	Soot %	%	*ASTM D7844	>4	0.3	0.6	
FLUID DEGRADATION method limit/base current history1 history Oxidation Abs/.1mm *ASTM D7414 >25 15.2 20.6	Nitration	Abs/cm	*ASTM D7624	>20	6.6	9.1	
Oxidation	Sulfation	Abs/.1mm	*ASTM D7415	>30	19.4	22.7	
	FLUID DEGRA	OATION	method	limit/base	current	history1	history2
Base Number (BN) mg KOH/g ASTM D2896 9.8 8.5 7.6	Oxidation	Abs/.1mm	*ASTM D7414	>25	15.2	20.6	
	Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.5	7.6	



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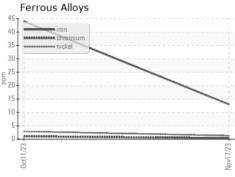


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
Precipitate	scalar	*Visual	NONE	NONE	NONE	
Silt	scalar	*Visual	NONE	NONE	NONE	
Debris	scalar	*Visual	NONE	NONE	NONE	
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
Appearance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

13.4

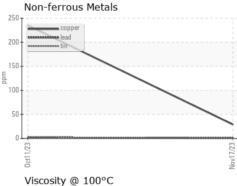
10.8

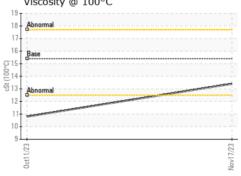
Visc @	100°C
GRA	PHS

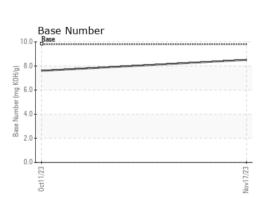


cSt

ASTM D445 15.4











Certificate L2367

Laboratory Sample No. Lab Number Unique Number : 10752781

: GFL0101595 : 06013637 Test Package : FLEET

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 21 Nov 2023 Diagnosed : 21 Nov 2023

Diagnostician : Wes Davis

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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Submitted By: Frank Wolak