PROBLEM SUMMARY

Area (P656739) Machine Id 10893

Component Diesel Engine Fluid PETRO CANADA DURON SHP 15W40 (--- GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

We advise that you check for the source of the coolant leak. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS							
Sample Status				SEVERE	SEVERE	NORMAL	
Potassium	ppm	ASTM D5185m	>20	<u> </u>	6 40	6	
Glycol	%	*ASTM D2982		0.10	0.10	NEG	

Customer Id: GFL015 Sample No.: GFL0104023 Lab Number: 06072672 Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data: Wes Davis +1 905-569-8600 x223 wesd@wearcheck.ca

To change component or sample information: Customer Service +1 1-800-237-1369 customerservice@wearcheck.com



RECOMMENDED ACTIONS						
Action	Status	Date	Done By	Description		
Resample			?	We recommend an early resample to monitor this condition.		
Check Glycol Access			?	We advise that you check for the source of the coolant leak.		

HISTORICAL DIAGNOSIS



02 Jan 2024 Diag: Don Baldridge

We advise that you check for the source of the coolant leak. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.All component wear rates are normal. Sodium and/or potassium levels are high. Test for glycol is positive. The BN level is low. The oil is no longer serviceable due to the presence of contaminants.



view report

05 Oct 2022 Diag: Wes Davis



Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please specify the component make and model with your next sample.All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

NORMAL



15 Apr 2022 Diag: Wes Davis

Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please specify the component make and model with your next sample. Metal levels are typical for a new component breaking in. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.









OIL ANALYSIS REPORT

Area (P656739) Machine Id 10893 Component

Diesel Engine

PETRO CANADA DURON SHP 15W40 (--- GAL)

DIAGNOSIS

Recommendation

We advise that you check for the source of the coolant leak. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

Test for glycol is positive. There is a high concentration of glycol present in the oil.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.



Sample Number Client Info GFL0104023 GFL0104023 GFL0104021 GFL0104021 GFL0104021 OS Ch12022 Machine Age hrs Client Info 13313 123554 9805 Oil Age hrs Client Info 13313 123554 9805 Oil Age hrs Client Info 13313 123554 9805 Oil Age hrs Client Info Changed	SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
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Soot % % *ASTM D7844 >3 0.4 2 0.4 Nitration Abs/cm *ASTM D7624 >20 9.7 20.1 9.2 Sulfation Abs/.1mm *ASTM D7415 >30 19.6 33.7 19.9 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.6 38.9 15.8 Base Number (BN) mg K0H/g ASTM D2896 9.8 9.4 3.0 9.6	ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Glycol	ppm ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm	method ASTM D5185m	limit/base 0 0 0 1010 1010 1070 1150 1270 2060 limit/base >25 >20	Current 14 <1 111 <1 843 1026 959 1116 2838 Current 8 189 429 0.10	history1 6 0 126 1 771 969 830 1089 2583 history1 21 △ 4640 ●.10	history2 23 0 65 <1 825 1119 999 1191 3571 history2 5 3 6 NEG
Nitration Abs/cm *ASTM D7624 >20 9.7 20.1 9.2 Sulfation Abs/.1mm *ASTM D7415 >30 19.6 33.7 19.9 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.6 38.9 15.8 Base Number (BN) mg KOH/g ASTM D2896 9.8 9.4 3.0 9.6	ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Glycol INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D2982 method	limit/base 0 0 0 1010 1070 1150 1270 2060 limit/base >20 limit/base	14 <1 111 <1 843 1026 959 1116 2838 current 8 189 429 0.10 current	history1 6 0 126 1 771 969 830 1089 2583 history1 21 △ 460 0.10 history1	history2 23 0 65 <1 825 1119 999 1191 3571 history2 5 3 6 NEG history2
Sulfation Abs/.1mm *ASTM D7415 >30 19.6 33.7 19.9 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.6 38.9 15.8 Base Number (BN) mg KOH/g ASTM D2896 9.8 9.4 3.0 9.6	ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Glycol INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base 0 0 0 1010 1070 1150 1270 2060 limit/base >25 >20 limit/base	14 <1 111 <1 843 1026 959 1116 2838 current 8 189 429 0.10 current 0.4	history1 6 0 126 1 771 969 830 1089 2583 history1 21 △ 640 0.10 history1	history2 23 0 65 <1 825 1119 999 1191 3571 history2 5 3 6 NEG history2 0.4
FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.imm *ASTM D7414 >25 16.6 38.9 15.8 Base Number (BN) mg KOH/g ASTM D2896 9.8 9.4 3.0 9.6	ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Glycol INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base 0 0 0 1010 1070 1150 1270 2060 limit/base >25 	Current 14 <1 111 <1 843 1026 959 1116 2838 Current 8 189 429 0.10 Current 0.4 9.7	history1 6 0 126 1 771 969 830 1089 2583 history1 21 △ 251 △ 640 0.10 history1 2 20.1	history2 23 0 65 <1 825 1119 999 1191 3571 history2 5 3 6 NEG history2 0.4 9.2
Oxidation Abs/.1mm *ASTM D7414 >25 16.6 38.9 15.8 Base Number (BN) mg KOH/g ASTM D2896 9.8 9.4 4.3 0 9.6	ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Glycol INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m *ASTM D5185m *ASTM D5185m *ASTM D5185m	limit/base 0 0 0 1010 1070 1150 1270 2060 limit/base >25 >20 limit/base >3 >20 >30	14 <1 111 <1 843 1026 959 1116 2838 current 8 ▲ 189 ▲ 229 ● 0.10 current 0.4 9.7 19.6	history1 6 0 126 1 771 969 830 1089 2583 history1 21 4 640 0.10 history1 2 20.1 33.7	history2 23 0 65 <1 825 1119 999 1191 3571 history2 5 3 6 NEG history2 0.4 9.2 19.9
Base Number (BN) mg KOH/g ASTM D2896 9.8 9.4 A 3.0 9.6	ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Glycol INFRA-RED Soot % Nitration Sulfation FLUID DEGRAD	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m	limit/base 0 0 0 1010 1010 1150 1270 2060 limit/base >25 >20 limit/base >3 >20 >30	14 <1 111 <1 843 1026 959 1116 2838 Current 8 189 429 0.10 current 0.4 9.7 19.6 current	history1 6 0 126 1 771 969 830 1089 2583 history1 21 △ 951 △ 640 ○ 0.10 history1 2 20.1 33.7 history1	history2 23 0 65 <1 825 1119 999 1191 3571 history2 5 3 6 NEG history2 0.4 9.2 19.9
	ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Glycol INFRA-RED Soot % Nitration Sulfation CVidation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m *ASTM D5185m *ASTM D5185m *ASTM D7844 *ASTM D7415 method *ASTM D7414	limit/base 0 0 0 1010 1070 1150 1270 2060 limit/base >20 limit/base >3 >20 >30 limit/base	Current 14 <1 111 <1 843 1026 959 1116 2838 current 8 189 429 0.10 current 0.4 9.7 19.6 current 16.6	history1 6 0 126 1 771 969 830 1089 2583 history1 21 △ 251 △ 640 ○ 0.10 history1 2 20.1 33.7 history1 38.9	history2 23 0 65 <1 825 1119 999 1191 3571 history2 5 3 6 NEG history2 0.4 9.2 19.9 history2 19.9 15.8



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
		and the second	Harach /Income		Internet and	la la tama O
FLUID PROPE	RHES	method	limit/base	current	nistory i	history2
Visc @ 100°C	cSt	ASTM D445	15.4	12.9	13.6	14.0
GRAPHS						



10

13 Abnormal

12 11-

Laboratory

Sample No.

Lab Number

Unique Number

Apr10/20







nmatthewsjr@gflenv.com T: (803)935-0249 F: (803)935-0244



Test Package : FLEET Certificate L2367 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)

Jan29/21.

: GFL0104023

: 06072672

: 10849349

Jun4/21.

Dec7/21.

Recieved

Diagnosed

Apr15/22

Jan2/24 -

Submitted By: NOEL MATTHEWS