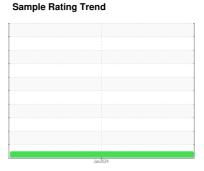


OIL ANALYSIS REPORT



Machine Id **713039** Component **Diesel Engine**

PETRO CANADA DURON SHP 15W40 (--- 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

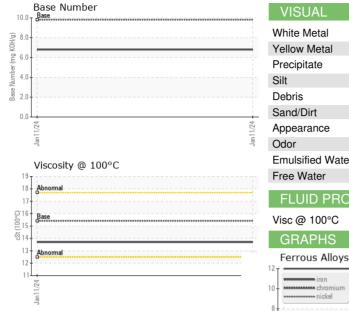
Fluid Condition

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

Sample Number Client Info GFL0096872 Client Info 11 Jan 2024 Client Info 0 Client Info 0 Client Info 0 Changed Client Info 600 Changed Client Info Changed Changed Client Info Changed Changed Client Info Changed Changed Changed Cha	•	,			Jan 2024		
Client Info	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Machine Age	Sample Number		Client Info		GFL0096872		
Machine Age	Sample Date		Client Info		11 Jan 2024		
Contained Client Info Changed Normal Contained Normal Contained Client Info Normal Contained Contained Client Info Normal Contained	Machine Age	hrs	Client Info		0		
CONTAMINATION method minit/base current history1 history2 history3 history4 history4 history5 histo	Oil Age	hrs	Client Info		600		
CONTAMINATION method minit/base current history1 history2 history3 history4 history4 history5 histo	Oil Changed		Client Info		Changed		
Water	Sample Status				NORMAL		
Water WC Method So.2 NEG So.2 NEG So.2 NEG So.3 So.3	CONTAMINATI	ON	method	limit/base	current	history1	history2
WEAR METALS	Fuel		WC Method	>3.0	<1.0		
WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >120 12 Chromium ppm ASTM D5185m >20 <1	Water		WC Method	>0.2	NEG		
Chromium	Glycol		WC Method		NEG		
Chromium	WEAR METALS	3	method	limit/base	current	history1	history2
ASTM D5185m >20			ASTM D5185m	>120	12		
Nickel	-	• • • • • • • • • • • • • • • • • • • •					
Description							
Silver		• •					
Aluminum							
Lead							
Copper							
Tin							
Vanadium ppm ASTM D5185m <1 Cadmium ppm ASTM D5185m 0 Boron ppm ASTM D5185m 0 2 Barium ppm ASTM D5185m 0 0 Molybdenum ppm ASTM D5185m 0 57 Manganese ppm ASTM D5185m 0 <1 Magnesium ppm ASTM D5185m 1010 909 Calcium ppm ASTM D5185m 1070 1045 Phosphorus ppm ASTM D5185m 1270 1126 Zinc ppm ASTM D5185m 2060 2373 CONTAMINANTS method limit/base current history1 history2 Solicon ppm ASTM D5185m >20 0 <	• •				-		
ADDITIVES		• • • • • • • • • • • • • • • • • • • •		>10			
ADDITIVES							
Boron ppm ASTM D5185m 0 2		ррпп					
Barium						history1	history2
Molybdenum ppm ASTM D5185m 60 57 Manganese ppm ASTM D5185m 0 <1	Boron	ppm					
Manganese ppm ASTM D5185m 0 <1 Magnesium ppm ASTM D5185m 1010 909 Calcium ppm ASTM D5185m 1070 1045 Phosphorus ppm ASTM D5185m 1150 959 Zinc ppm ASTM D5185m 1270 1126 Sulfur ppm ASTM D5185m 2060 2373 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 4 Sodium ppm ASTM D5185m 3 Potassium ppm ASTM D5185m >20 0 Soot % % *ASTM D7844 >4 0.4 Soot % % *ASTM D7844 >4	Barium	ppm			-		
Magnesium ppm ASTM D5185m 1010 909 Calcium ppm ASTM D5185m 1070 1045 Phosphorus ppm ASTM D5185m 1150 959 Zinc ppm ASTM D5185m 1270 1126 Sulfur ppm ASTM D5185m 2060 2373 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 4 Sodium ppm ASTM D5185m >20 0 Potassium ppm ASTM D5185m >20 0 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >4 0.4 Sulfation Abs/cm *ASTM D7624	-	ppm			_		
Calcium ppm ASTM D5185m 1070 1045 Phosphorus ppm ASTM D5185m 1150 959 Zinc ppm ASTM D5185m 1270 1126 Sulfur ppm ASTM D5185m 2060 2373 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 4 Sodium ppm ASTM D5185m >20 0 Potassium ppm ASTM D5185m >20 0 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >4 0.4 Sulfation Abs/.1mm *ASTM D7415 >30 19.6 FLUID DEGRADATION method limi	-	ppm	ASTM D5185m	0	<1		
Phosphorus ppm ASTM D5185m 1150 959 Zinc ppm ASTM D5185m 1270 1126 Sulfur ppm ASTM D5185m 2060 2373 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 4 Sodium ppm ASTM D5185m 3 Potassium ppm ASTM D5185m >20 0 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >4 0.4 Silicon Abs/cm *ASTM D7624 >20 8.7 Soot % % *ASTM D7415 >30 19.6 Sulfation Abs/.1mm *ASTM D7414 >25	Magnesium	ppm			909		
Zinc ppm ASTM D5185m 1270 1126 Sulfur ppm ASTM D5185m 2060 2373 Sulfur ppm ASTM D5185m 2060 2373 Sulfucon ppm ASTM D5185m >25 4 Sodium ppm ASTM D5185m 3 Sodium ppm ASTM D5185m >20 0 Sulfation Abs/cm *ASTM D7844 >4 0.4 Sulfation Abs/cm *ASTM D7624 >20 8.7 Sulfation Abs/.1mm *ASTM D7415 >30 19.6 Sulfation Abs/.1mm *ASTM D7414 >25 16.0 Sulfation Abs/.1mm *ASTM D7414 >25 16.0 Sulfation Abs/.1mm *ASTM D7414 >25 16.0	Calcium	ppm	ASTM D5185m	1070	1045		
Sulfur ppm ASTM D5185m 2060 2373 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 4 Sodium ppm ASTM D5185m 3 Potassium ppm ASTM D5185m >20 0 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >4 0.4 Silfation Abs/cm *ASTM D7624 >20 8.7 FUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.0	Phosphorus	ppm			959		
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 4 Sodium ppm ASTM D5185m 3 Potassium ppm ASTM D5185m >20 0 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >4 0.4 Nitration Abs/cm *ASTM D7624 >20 8.7 Sulfation Abs/.1mm *ASTM D7415 >30 19.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.0	Zinc	ppm	ASTM D5185m	1270	1126		
Solicon ppm ASTM D5185m >25 4	Sulfur	ppm	ASTM D5185m	2060	2373		
Sodium ppm ASTM D5185m 3	CONTAMINAN	ΓS	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 0 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >4 0.4 Nitration Abs/cm *ASTM D7624 >20 8.7 Sulfation Abs/.1mm *ASTM D7415 >30 19.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.0	Silicon	ppm		>25			
INFRA-RED	Sodium	ppm	ASTM D5185m		3		
Soot %	Potassium	ppm	ASTM D5185m	>20	0		
Nitration Abs/cm *ASTM D7624 >20 8.7 Sulfation Abs/.1mm *ASTM D7415 >30 19.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.0	INFRA-RED		method	limit/base	current	history1	history2
Sulfation Abs/.1mm *ASTM D7415 >30 19.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.0	Soot %	%	*ASTM D7844	>4	0.4		
FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.0	Nitration	Abs/cm	*ASTM D7624	>20	8.7		
Oxidation	Sulfation	Abs/.1mm	*ASTM D7415	>30	19.6		
	FLUID DEGRAD	ATION	method	limit/base	current	history1	history2
Base Number (BN) mg KOH/g ASTM D2896 9.8 6.8	Oxidation	Abs/.1mm	*ASTM D7414	>25	16.0		
, , , ,	Base Number (BN)	mg KOH/g	ASTM D2896	9.8	6.8		

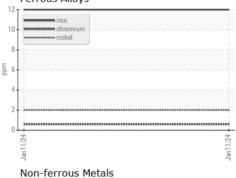


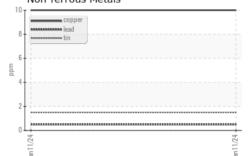
OIL ANALYSIS REPORT

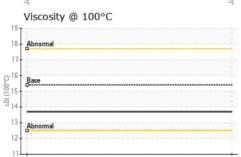


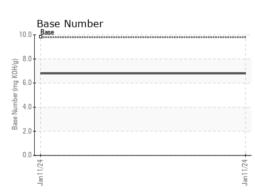
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE		
Yellow Metal	scalar	*Visual	NONE	NONE		
Precipitate	scalar	*Visual	NONE	NONE		
Silt	scalar	*Visual	NONE	NONE		
Debris	scalar	*Visual	NONE	NONE		
Sand/Dirt	scalar	*Visual	NONE	NONE		
Appearance	scalar	*Visual	NORML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

FLUID FROF		memou			HISTOLAL	HISTORYZ
Visc @ 100°C	cSt	ASTM D445	15.4	13.7		











Certificate L2367

Laboratory Sample No. Lab Number Unique Number : 10848161 Test Package : FLEET

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : GFL0096872 : 06071484

Recieved : 26 Jan 2024 Diagnosed Diagnostician : Wes Davis

: 26 Jan 2024

GFL Environmental - 401 - Fort Wayne Hauling 4429 ALLEN MARTIN DR FORT WAYNE, IN US 46806

> Contact: Zachory Roehm zroehm@gflenv.com T:

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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