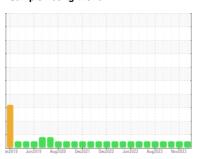


OIL ANALYSIS REPORT

Sample Rating Trend







729066-362007

Component

Diesel Engine

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

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil

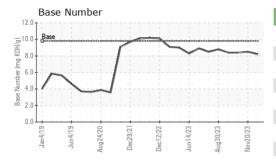
Fluid Condition

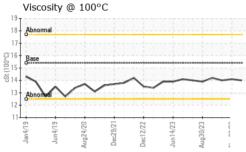
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORMATION method fimilibase current history1 history2	GAL)		an2019 Jun2	019 Aug2020 Dec2021	Dec2022 Jun2023 Aug2023	Nov2023	
Sample Date	SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info 13097 13038 12824 Oil Age hrs Client Info 0 0 0 Oil Changed Client Info N/A N/A N/A N/A Sample Status Image: Client Info N/A N/A N/A N/A CONTAMINATION method Image: Client Info N/A N/A N/A Fuel WC Method 5 <1.0	Sample Number		Client Info		GFL0086406	GFL0074779	GFL0086387
Oil Age hrs Client Info N/A N/A N/A N/A Oil Changed Client Info N/A N/A N/A N/A N/A Sample Status Client Info N/A N/A N/A N/A N/A CONTAMINATION method limit/base current history1 history2 Fuel WC Method >5 <1.0 <1.0 <1.0 Water WC Method >5 <1.0 <1.0 <1.0 WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >100 7 6 6 Chromium ppm ASTM D5185m >100 <1 <1 <1 Nickel ppm ASTM D5185m >20 2 2 1 <1 Silver ppm ASTM D5185m >30 0 <1 <1 <1 Copper ppm ASTM D5185m >30	Sample Date		Client Info		10 Dec 2023	20 Nov 2023	17 Oct 2023
Oil Changed Status Client Info N/A NAMAL NORMAL NEG	Machine Age	hrs	Client Info		13097	13038	12824
Sample Status	Oil Age	hrs	Client Info		0	0	0
CONTAMINATION method limit/base current history1 history2 Fuel WC Method >5 <1.0	Oil Changed		Client Info		N/A	N/A	N/A
Fuel	Sample Status				NORMAL	NORMAL	NORMAL
Water WC Method >0.2 NEG NEG NEG Glycol WC Method Ilimit/base current history1 history2 WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >100 7 6 6 Chromium ppm ASTM D5185m >20 <1	CONTAMINATIO	NC	method	limit/base	current	history1	history2
Second WC Method NEG NEG NEG	Fuel		WC Method	>5	<1.0	<1.0	<1.0
WEAR METALS	Water		WC Method	>0.2	NEG	NEG	NEG
Iron	Glycol		WC Method		NEG	NEG	NEG
Chromium ppm ASTM D5185m >20 <1 <1 <1 Nickel ppm ASTM D5185m >4 0 0 0 Titanium ppm ASTM D5185m >3 0 0 0 Silver ppm ASTM D5185m >3 0 0 0 Aluminum ppm ASTM D5185m >40 0 <1	WEAR METALS	;	method	limit/base	current	history1	history2
Nickel	Iron	ppm	ASTM D5185m	>100	7	6	6
Titanium ppm ASTM D5185m 0 <1 <1 Silver ppm ASTM D5185m >3 0 0 0 Aluminum ppm ASTM D5185m >20 2 2 1 Lead ppm ASTM D5185m >40 0 <1	Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Silver	Nickel	ppm	ASTM D5185m	>4		0	0
Aluminum	Titanium	ppm	ASTM D5185m		0		
Lead ppm ASTM D5185m >40 0 <1 <1 Copper ppm ASTM D5185m >330 0 2 <1 Tin ppm ASTM D5185m >15 0 0 <1 Vanadium ppm ASTM D5185m 0 0 0 <1 Cadmium ppm ASTM D5185m 0 0 0 <1 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 0 0 <1 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 0 0 0 0 Abs/imm ppm ASTM D5185m 1010 259							
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Sulfur ppm ASTM D5185m 2060 3617 3372 3399 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 3 4 3 Sodium ppm ASTM D5185m >20 6 5 5 Potassium ppm ASTM D5185m >20 6 5 5 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.2 0.2 0.2 Nitration Abs/cm *ASTM D7624 >20 6.5 6.3 6.0 Sulfation Abs/.1mm *ASTM D7415 >30 19.3 19.6 19.2 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 15.3 15.5 15.1							
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Sodium ppm ASTM D5185m 4 3 3 Potassium ppm ASTM D5185m >20 6 5 5 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.2 0.2 0.2 Nitration Abs/cm *ASTM D7624 >20 6.5 6.3 6.0 Sulfation Abs/.1mm *ASTM D7415 >30 19.3 19.6 19.2 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 15.3 15.5 15.1							
Potassium ppm ASTM D5185m >20 6 5 5 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.2 0.2 0.2 Nitration Abs/cm *ASTM D7624 >20 6.5 6.3 6.0 Sulfation Abs/.1mm *ASTM D7415 >30 19.3 19.6 19.2 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 15.3 15.5 15.1						3	3
Soot % % *ASTM D7844 >3 0.2 0.2 0.2 Nitration Abs/cm *ASTM D7624 >20 6.5 6.3 6.0 Sulfation Abs/.1mm *ASTM D7415 >30 19.3 19.6 19.2 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 15.3 15.5 15.1			ASTM D5185m	>20	6	5	5
Nitration Abs/cm *ASTM D7624 >20 6.5 6.3 6.0 Sulfation Abs/.1mm *ASTM D7415 >30 19.3 19.6 19.2 FLUID DEGRADATION method limit/base current current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 15.3 15.5 15.1	INFRA-RED		method	limit/base	current	history1	history2
Nitration Abs/cm *ASTM D7624 >20 6.5 6.3 6.0 Sulfation Abs/.1mm *ASTM D7415 >30 19.3 19.6 19.2 FLUID DEGRADATION method limit/base current current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 15.3 15.5 15.1	Soot %	%	*ASTM D7844	>3	0.2	0.2	0.2
Sulfation Abs/.1mm *ASTM D7415 >30 19.3 19.6 19.2 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 15.3 15.5 15.1		Abs/cm					
Oxidation Abs/.1mm *ASTM D7414 >25 15.3 15.5 15.1	Sulfation	Abs/.1mm	*ASTM D7415	>30			
	FLUID DEGRAD	ATION	method	limit/base	current	history1	history2
	Oxidation	Abs/.1mm	*ASTM D7414	>25	15.3	15.5	15.1
	Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.2	8.5	8.4



OIL ANALYSIS REPORT

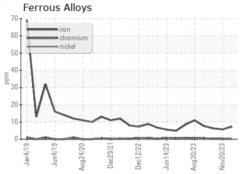


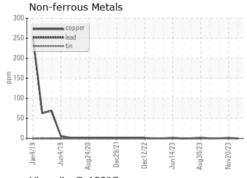


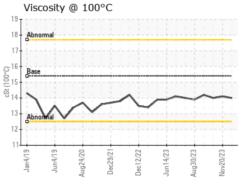
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	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

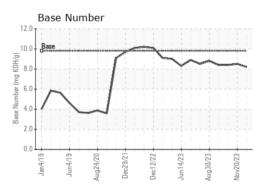
FLUID PROPE	RTIES	method				history2
Visc @ 100°C	cSt	ASTM D445	15.4	14.0	14.1	14.0

GRAPHS













Certificate L2367

Laboratory Sample No. Lab Number

Unique Number : 10781068 Test Package : FLEET

: GFL0086406 : 06031277

To discuss this sample report, contact Customer Service at 1-800-237-1369.

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 11 Dec 2023 Diagnosed : 14 Dec 2023 Diagnostician : Don Baldridge

GFL Environmental - 816 - WCA of South Arkansas 3083 Smackover Hwy

El Dorado, AR US 71730

Contact: Mike Howell mike.howell@gflenv.com

* - 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) T:

F: