

# **OIL ANALYSIS REPORT**



### Machine Id

# 526059

#### **Diesel Engine**

Fluid 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 INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0095235		
Sample Date		Client Info		13 Mar 2024		
Machine Age	hrs	Client Info		20863		
Oil Age	hrs	Client Info		600		
Oil Changed		Client Info		Changed		
Sample Status				NORMAL		
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>6.0	<1.0		
Water		WC Method	>0.2	NEG		
Glycol		WC Method		NEG		
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	3		
Chromium	ppm	ASTM D5185m	>20	0		
Nickel	ppm	ASTM D5185m	>2	0		
Titanium	ppm	ASTM D5185m		0		
Silver	ppm	ASTM D5185m	>2	0		
Aluminum	ppm	ASTM D5185m	>25	2		
Lead	ppm	ASTM D5185m	>40	0		
Copper	ppm	ASTM D5185m	>330	0		
Tin	ppm	ASTM D5185m	>15	0		
Vanadium	ppm	ASTM D5185m		0		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	6		
Barium	ppm	ASTM D5185m	0	0		
Molybdenum	ppm	ASTM D5185m	60	56		
Manganese	ppm	ASTM D5185m	0	<1		
Magnesium	ppm	ASTM D5185m	1010	894		
Calcium	ppm	ASTM D5185m	1070	1216		
Phosphorus	ppm	ASTM D5185m	1150	1070		
Zinc	ppm	ASTM D5185m	1270	1264		
Sulfur	ppm	ASTM D5185m	2060	3691		
CONTAMINAN	TS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	3		
Sodium	ppm	ASTM D5185m		<1		
Potassium		AOTH DELOF	~~			
	ppm	ASTM D5185m	>20	2		
INFRA-RED	ppm	method	>20 limit/base	2 current	 history1	history2
INFRA-RED Soot %	ppm %					
		method	limit/base	current	history1	history2
Soot %	%	method *ASTM D7844	limit/base >3	current 0.3	history1	history2
Soot % Nitration	% Abs/cm Abs/.1mm	method *ASTM D7844 *ASTM D7624	limit/base >3 >20	current 0.3 7.9	history1 	history2 
Soot % Nitration Sulfation	% Abs/cm Abs/.1mm	method *ASTM D7844 *ASTM D7624 *ASTM D7415	limit/base >3 >20 >30	current 0.3 7.9 18.0	history1  	history2  
Soot % Nitration Sulfation FLUID DEGRAD	% Abs/cm Abs/.1mm DATION	method *ASTM D7844 *ASTM D7624 *ASTM D7415 method	limit/base >3 >20 >30 limit/base	current 0.3 7.9 18.0 current	history1   history1	history2   history2

Contact/Location: See also GFL904,A,B,C, 927, 938) - Andy Kane - GFL904 Page 1 of 2



# **OIL ANALYSIS REPORT**

FT-IR (Direct Trend) $35_{T}$	VISUAL		method	limit/base	current	history1	history2
0xidation 30	White Metal	scalar	*Visual	NONE	NONE		
25 Sulfation	Yellow Metal	scalar	*Visual	NONE	NONE		
50 20 -	Precipitate	scalar	*Visual	NONE	NONE		
P 15-	Silt	scalar	*Visual	NONE	NONE		
10-	Debris	scalar	*Visual	NONE	NONE		
5	Sand/Dirt	scalar	*Visual	NONE	NONE		
Mar13/24 Mar13/24	Appearance	scalar	*Visual	NORML	NORML		
Mar	Odor	scalar	*Visual	NORML	NORML		
Base Number	Emulsified Water	scalar	*Visual	>0.2	NEG		
10.0 Base	Free Water	scalar	*Visual		NEG		
0.8 40 HOX B()	FLUID PROPE	RTIES	method	limit/base	current	history1	history2
हु 6.0 फ	Visc @ 100°C	cSt	ASTM D445	15.4	13.8		
10 4.0 88 82.0	GRAPHS						
2.0	Ferrous Alloys						
0.0 V Karal 201	8						
	6-						
Viscosity @ 100°C	Ed.						
18 - Abnormal							
	2-						
다 16 - Base 0 15	0	******					
	Mar13/24			Mar13/24			
13 Abnormal	—			Mar			
11	Non-ferrous Meta	ls					
мат 3,2 г м	copper						
4	8 - tin						
	6-						
	mdd						
	4						
	2 -						
	0						
	3/24 -			ar13/24 -			
	Mar1			Mar1			
	Viscosity @ 100°C	2			Base Number		
	19			10.0	Base	*****	
	18 - Abnormal			~ 80			
				B/HO)			
	D-16 Base 15 15 14			0,8.0 (0,0)			
	ts 14			aq 4.0-			
	13 - Abnormal			ase N			
	12			<sup>∞</sup> 2.0·	•		
	11			0.0	L		
	Mar13/24			Mar13/24	Mar13/24		Mar13/24
	Ň			Ň	×		Ma
Laboratory Sample No. Lab Number Unique Number Test Package To discuss this sample report, * - Denotes test methods that	: 11111790 : FLEET contact Customer Serv	Recei Teste Diagr	ived : 05 id : 08 nosed : 08 800-237-1368	5 Jul 2024 3 Jul 2024 3 Jul 2024 - We 9.		Chip Conta	hippewa Falls HC 3 30th Avenue bewa Falls, WI US 54729 act: Andy Kane (715)202-3420
Statements of conformity to sp	pecifications are based				rule (JCGM 106		F:

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Contact/Location: See also GFL904, A, B, C, 927, 938) - Andy Kane - GFL904