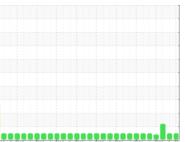


### **OIL ANALYSIS REPORT**

#### Sample Rating Trend





#### \_\_\_\_\_\_

	GAL)		n2017 Oct201	/ Junzulo Janzulo Sepzu	119 Jan2020 Oct2020 Jul2021 Ja	nzuzz Sepzu.	
	SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
	Sample Number		Client Info		GFL0086265	GFL0086225	GFL0057638
val to monitor.	Sample Date		Client Info		06 Sep 2023	04 Aug 2023	02 Feb 2023
	Machine Age	mls	Client Info		489130	33076	489130
nal.	Oil Age	mls	Client Info		22556	33076	32471
	Oil Changed		Client Info		Changed	Changed	Changed
mination in the	Sample Status				NORMAL	NORMAL	ATTENTION
	CONTAMINATIO	NC	method	limit/base	current	history1	history2
s suitable	Fuel		WC Method	>3.0	<1.0	<1.0	<b>3</b> .5
condition of the	Glycol		WC Method		NEG	NEG	NEG
	WEAR METALS	;	method	limit/base	current	history1	history2
	Iron	ppm	ASTM D5185m	>120	4	15	45
	Chromium	ppm	ASTM D5185m	>20	<1	<1	1
	Nickel	ppm	ASTM D5185m	>5	0	0	<1
	Titanium	ppm	ASTM D5185m	>2	0	0	0
	Silver	ppm	ASTM D5185m	>2	0	0	0
	Aluminum	ppm	ASTM D5185m	>20	<1	1	1
	Lead	ppm	ASTM D5185m	>40	<1	2	12
	Copper	ppm	ASTM D5185m	>330	1	1	7
	Tin	ppm	ASTM D5185m	>15	<1	<1	<1
	Antimony	ppm	ASTM D5185m				
	Vanadium	ppm	ASTM D5185m		0	<1	0
	Cadmium	ppm	ASTM D5185m		0	0	0
	ADDITIVES		method	limit/base	current	history1	history2
	Boron	ppm	ASTM D5185m	0	30	18	6
	Barium	ppm	ASTM D5185m	0	0	0	0
	Molybdenum	ppm	ASTM D5185m	60	60	62	55
	Manganese	ppm	ASTM D5185m	0	1	0	<1
	Magnesium	ppm	ASTM D5185m	1010	861	857	796
	Calcium	ppm	ASTM D5185m	1070	1111	1131	1087
	Phosphorus	ppm	ASTM D5185m	1150	981	974	832
	Zinc	ppm	ASTM D5185m	1270	1239	1177	1117
	Sulfur	ppm	ASTM D5185m	2060	3813	3411	2787
	CONTAMINANT	S	method	limit/base	current	history1	history2
	Silicon	ppm	ASTM D5185m	>25	2	3	3
	Sodium	ppm	ASTM D5185m		1	1	2
	Potassium	ppm	ASTM D5185m	>20	2	<1	<1
	INFRA-RED		method	limit/base	current	history1	history2
	Soot %	%	*ASTM D7844	>4	0.3	1.2	1.8
	Nitration	Abs/cm	*ASTM D7624	>20	5.0	6.7	9.2
	Sulfation	Abs/.1mm	*ASTM D7415	>30	16.1	18.8	21.2
	FLUID DEGRAD	ATION	method	limit/base	current	history1	history2
		Ale e / due ve		05	40.0	10.0	14.3
	Oxidation	Abs/.1mm	*ASTM D7414	>25	10.8	12.2	14.5

# Machine Id

Component **Diesel Engine** 

#### Fluic PETRO CANADA DURON SHP 15W40 (7 GAL)

#### DIAGNOSIS

#### Recommendation

Resample at the next service intervice

#### Wear

All component wear rates are no

#### Contamination

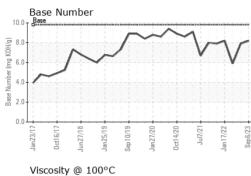
There is no indication of any con oil.

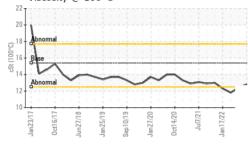
#### Fluid Condition

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



## **OIL ANALYSIS REPORT**





history2 NONE NONE NONE NONE NONE	history1 NONE	current	limit/base	method		VISUAL	-	-
NONE NONE NONE				*) //				
NONE NONE		NONE	NONE	*Visual	scalar	White Metal	11	1
NONE	NONE	NONE	NONE	*Visual	scalar	Yellow Metal	V	v
	NONE	NONE	NONE	*Visual	scalar	Precipitate		
NONE	NONE	NONE	NONE	*Visual	scalar	Silt		
	NONE	NONE	NONE	*Visual	scalar	Debris		
NONE	NONE	NONE	NONE	*Visual	scalar	Sand/Dirt		<u>.</u>
NORML	NORML	NORML	NORML	*Visual	scalar	Appearance	Jan 17/22 Sep6/23	7//In
NORML	NORML	NORML	NORML	*Visual	scalar	Odor	Jan Se	-
NEG	NEG	NEG	>0.2	*Visual	scalar	Emulsified Water		
NEG	NEG	NEG		*Visual	scalar	Free Water		
history2	history1	current	limit/base	method	ERTIES	FLUID PROPE		
11.8	12.4	12.8	15.4	ASTM D445	cSt	Visc @ 100°C		
						GRAPHS		
						Ferrous Alloys	$\sim$ -	-
						60 iron		
						50 - chromium	Jan 17/22	17//10
			4			40 - 1	Jan	
			1					
						§ 30		
			1					
			1101	AN		20		
				1.		10 10 -		
			1		$\neg \land$			
			53	20 - /21 -	719			
			Sep6/23	Oct14/20 Jul7/21 Jan17/22	Sep10/19 Jan27/20	Jan 23/17 Oct 16/17 Jan 27/18		
			5720FT	) P		Non-ferrous Meta		
					11 <b>5</b> 115 - 115 - 115 - 115	<sup>50</sup> Tarraterious meta		
						copper		
						40 - 40 - 40 - 40 - 40 - 40 - 40 - 40 -		
						30-		
						50- E		
						20		
			٨			10		
			<u>N</u>	1				
			/23	/20 - /21 - /22 -	/19			
			Sep6/23	Oct14/20 Jul7/21 Jan17/22	Sep10/19 Jan27/20	Jan 23/17 Oct16/17 Jan 25/19		
		Base Number	10.0		u 	Viscosity @ 100°		
$\sim$	- · ^	<b>On - Berlin - Berlin - Berlin - Berlin -</b>	10.0			20		
~Im.	~~`					20-		
V \/		N	(0/HOX 6.0- 6.0- 9.0 January 10.0 Konton 10.0 Konton 1			18 - Abnormal		
· · · · · · · · · · · · · · · · · · ·			B 6.0			Base	000	
		$\sim$	nber			Base	0	
	n projecti		5 4.0-	~				
			20.	m	~~	Abnormal		
			2.0			12		
			0.0-			10		
0ct14/20 Ju[7/21 Jan17/22	10/15 27/20	23/1: 16/1; 27/18	p6/23	14/2( u1//2	27/20	23/1: 16/1 <u>-</u> 27/18 25/19		
	Sep <sup>-</sup> Janž	Jan Jun2	Se	0ct JL Jan1	Sep <sup>-</sup> Jan2	Jani Junž Janž		
Jan J							_	_
	ronmental -	GFL En					atory	
ıl - 009 - Fairbu			0000	· 11 9	Received	: GFL0086265		mn
l <b>l - 009 - Fairbu</b> 05 Roosevelt Hv	6905 I		Sep 2023					
I <b>I - 009 - Fairbu</b> 05 Roosevelt Hv Fairburn, G	6905		Sep 2023	ed : 12 S	Diagnose	: 05947016	umber	b N
I <b>I - 009 - Fairbu</b> 05 Roosevelt Hv Fairburn, G US 302 <sup>-</sup>				ed : 12 S		: <mark>05947016</mark> : 10642975	Number	b N ique
I <b>I - 009 - Fairbu</b> 05 Roosevelt Hv Fairburn, G	Cont		Sep 2023 S Davis	ed : 12 S ician : Wes	Diagnose Diagnost	: 05947016	e Number Package	b N ique st F
	Sep 10/19 Jan 27/20	GFL En	ery, NC 27513		61/01 Madis Received	12 10 Ll/g2uer 81/J2ruer : WearCheck USA -	le No.	

To discuss this samp \* - 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)

Certificate L2367

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