

# **OIL ANALYSIS REPORT**

Sample Rating Trend





#### **6** Component

# Diesel Engine

#### Fluid PETRO CANADA DURON SHP 10W30 (--- GAL)

## DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

Metal levels are typical for a components first oil change.

#### Contamination

Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

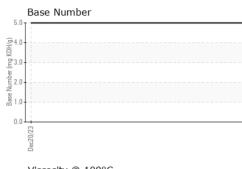
### Fluid Condition

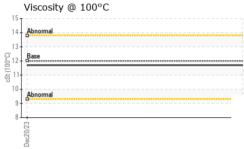
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

AL)				Dec2023		
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0110714		
Sample Date		Client Info		20 Dec 2023		
Vachine Age	hrs	Client Info		2113		
Dil Age	hrs	Client Info		2113		
Dil Changed		Client Info		N/A		
Sample Status				NORMAL		
CONTAMINAT	ION	method	limit/base	current	history1	history2
<sup>-</sup> uel		WC Method	>5	<1.0		
Nater		WC Method	>0.2	NEG		
Glycol		WC Method		NEG		
WEAR METAL	S	method	limit/base	current	history1	history2
ron	ppm	ASTM D5185m	>100	37		
Chromium	ppm	ASTM D5185m	>20	<1		
Nickel	ppm	ASTM D5185m	>4	0		
Fitanium	ppm	ASTM D5185m		0		
Silver	ppm	ASTM D5185m	>3	0		
Aluminum	ppm	ASTM D5185m	>20	19		
ead	ppm	ASTM D5185m	>40	0		
Copper	ppm	ASTM D5185m	>330	6		
-in	ppm	ASTM D5185m	>15	0		
/anadium	ppm	ASTM D5185m		0		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	2		
Barium	ppm	ASTM D5185m	0	0		
Nolybdenum	ppm	ASTM D5185m	50	52		
Manganese	ppm	ASTM D5185m	0	<1		
/agnesium	ppm	ASTM D5185m	950	911		
Calcium	ppm	ASTM D5185m	1050	1142		
Phosphorus	ppm	ASTM D5185m	995	920		
Zinc	ppm	ASTM D5185m	1180	1180		
Sulfur	ppm	ASTM D5185m	2600	2622		
CONTAMINAN	ITS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	12		
Sodium	ppm	ASTM D5185m		2		
Potassium	ppm	ASTM D5185m	>20	47		
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.5		
Nitration	Abs/cm	*ASTM D7624		11.1		
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.9		
FLUID DEGRA		method	limit/base	current	history1	history2
FLUID DEGRA	DATION Abs/.1mm	method *ASTM D7414		current 21.2	history1	history2



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	VISUAL		method				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		
20,023	Appearance	scalar	*Visual	NORML	NORML		
ac.	Odor	scalar	*Visual	NORML	NORML		
	Emulsified Water	scalar	*Visual	>0.2	NEG		
	Free Water	scalar	*Visual		NEG		
	FLUID PROPE	ERTIES	method	limit/base	current	history1	history2
	Visc @ 100°C	cSt	ASTM D445	12.00	11.7		
	GRAPHS						
	Ferrous Alloys						
	<sup>40</sup> L						
	35 - iron						
	30 nickel						
	25-						
	툡 20						
	15						
	10-						
	5-						
				53			
	Dec20/23			Dec20/23			
	—			De			
	Non-ferrous Meta	IS					
	copper						
	8 - lead						
	sessesses tin						
	6						
	6						
	6						
	6						
	6						
				0/23			
				Dec20/23			
	Viscosity @ 100°C	2			Base Number		
	Uiscosity @ 100°C	c			Base Number		
	Uiscosity @ 100°C	C		5.0	Base Number		
	Uiscosity @ 100°C	C		5.0	Base Number		
	Uiscosity @ 100°C	C		5.0	Base Number		
	Uiscosity @ 100°C	C		5.0	Base Number		
	Viscosity @ 100°C	C		5.0	Base Number		
	Uiscosity @ 100°C	с			Base Number		
	Viscosity @ 100°C	C		5.0 (P4.0- b) (P4.0- ) (P4.0-))) (P4.0-))) (P4.0-))) (P4.0-)))) (P4.0-)))))(P4.0-)))(P4.0-)))(P4.0-)))(P4.0-)))(P4.0-)))(P4.0-)))(P4.0-)))(P4.0-))(P4	Base Number		
	Viscosity @ 100°C	C		5.0- (0,4.0- HOX Bu) 3.0- yaquer 2.0- 888 1.0-			
	Viscosity @ 100°C	C		5.0 (P4.0- b) (P4.0- ) (P4.0-))) (P4.0-))) (P4.0-))) (P4.0-))) (P4.0-)))) (P4.0-))))(P4.0-)))(P4.0-)))(P4.0-)))(P4.0-)))(P4.0-)))(P4.0-)))(P4.0-))(P4.0-)))(P4.0-))(P4.0-))(P4.0-))(P4.0-))(P4.0-))(P4.0-))(P4.0-))(P4.0-))(P4.0-))(P4.0-))(P4.0-))(P4.0-))(P4.0-))(P4.0-))(P4.0-))(P4.0-))(P4.0-))(P4.0-))(P4.0-))(P	Base Number		
Laboratory Sample No. Lab Number Unique Number	Viscosity @ 100°C		d : 26   ed : 27	5.0 (PHO) Base Number Base 1.0 Dec20023	Dec20/23	BLUE MA 15 E. WESTING CH	IARLOTTE, N US 2827
Sample No. Lab Number Unique Numbe Test Package	Viscosity @ 100°C	501 Madia Recieved Diagnos Diagnos	d : 26   ed : 27   tician : We	ry, NC 27513 Dec 2023 s Davis	Dec20/23	BLUE MA 15 E. WESTING CH Cont.	AX TRUCKIN HOUSE BLVI IARLOTTE, N US 2827 act: Jody Gree
Sample No. Lab Number Unique Numbe	Viscosity @ 100°C	501 Madia Recieved Diagnos Diagnos	d : 26   ed : 27   tician : We	s.0 (0) (0) (0) (0) (0) (0) (0) (0	Dec20/23	BLUE MA 15 E. WESTING CH Conta jgreer@bluem	AX TRUCKIN HOUSE BLVI IARLOTTE, N US 2827 act: Jody Gree

