

# **OIL ANALYSIS REPORT**

Sample Rating Trend





#### Component Diesel Engine

PETRO CANADA DURON SHP 10W30 (--- QTS)

# DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

## Wear

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil.

#### **Fluid Condition**

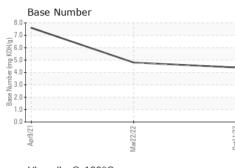
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

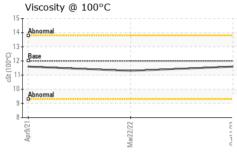
TS)						
SAMPLE INFOR			limit/base	Mar2022 Oct202 Current	<sup>13</sup> history1	history2
Sample Number		Client Info	in the babb	PCA0079798	PCA0051421	PCA0040619
Sample Date		Client Info		11 Oct 2023	22 Mar 2022	09 Apr 2021
Anne Age	mls	Client Info		234716	115676	32336
Dil Age	mls	Client Info		0	0	32336
Dil Changed	11115	Client Info		N/A	0 N/A	Changed
Sample Status				NORMAL	NORMAL	ABNORMAL
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
ron	ppm	ASTM D5185m	>100	63	62	61
Chromium	ppm	ASTM D5185m	>20	1	1	1
Nickel	ppm	ASTM D5185m	>4	2	1	2
Fitanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m	>3	0	<1	1
Aluminum	ppm	ASTM D5185m	>20	3	10	30
ead	ppm	ASTM D5185m	>40	3	4	6
Copper	ppm	ASTM D5185m	>330	10	32	257
ïn	ppm	ASTM D5185m	>15	2	4	8
Intimony	ppm	ASTM D5185m				<1
/anadium	ppm	ASTM D5185m		<1	0	<1
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	<1	1	3
Barium	ppm	ASTM D5185m	0	0	0	0
/lolybdenum	ppm	ASTM D5185m	50	63	57	43
<i>l</i> anganese	ppm	ASTM D5185m	0	1	2	5
<i>I</i> agnesium	ppm	ASTM D5185m	950	953	865	519
Calcium	ppm	ASTM D5185m	1050	1140	1102	1595
Phosphorus	ppm	ASTM D5185m	995	1009	867	859
Zinc	ppm	ASTM D5185m	1180	1287	1066	1104
Sulfur	ppm	ASTM D5185m	2600	2488	1765	1993
CONTAMINAN	ITS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	8	6	25
Sodium	ppm	ASTM D5185m		5	4	2
Potassium	ppm	ASTM D5185m	>20	6	18	<b>8</b> 6
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.9	1.1	0.5
Nitration	Abs/cm	*ASTM D7624	>20	13.0	14.5	12.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	25.5	27.1	26.4
FLUID DEGRA	DATION		limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	23.1	24.6	26.5

Contact/Location: JOHNNY LASSITER - PERCOF



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	VISUAL		method				history2
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
1 1 1 1	Silt	scalar	*Visual	NONE	NONE	NONE	NONE
	Debris	scalar	*Visual	NONE	NONE	NONE	NONE
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
0ct11/23	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Octi	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
	Free Water	scalar	*Visual		NEG	NEG	NEG
	FLUID PROPI	ERTIES	method	limit/base	current	history1	history2
	Visc @ 100°C	cSt	ASTM D445	12.00	11.6	11.3	11.6
	GRAPHS						
	Ferrous Alloys						
ç	iron						
111	50 -						
-							
	80						
	- 30						
	20						
	10						
	0						
	Apr9/21	Mar22/22		0ct11/23			
	Aŗ	Mari		Oct			
	Non-ferrous Meta	als					
	300 copper						
	250 - internet lead						
	200						
	<u>۾</u> 150						
	B 150						
	100						
	100-						
	100 50 0			/23			
	100-	Mar22/22		0ct11/23			
	Viscosity @ 100°				Base Numbe	r	
	100 50 0 107 107 100 100 100 100 100 100			8.0-	Base Numbe	r	
	100 50 0 12000 Viscosity @ 100° 14 Abnomal			8.0		r	
	Viscosity @ 100°			8.0		r	
	Viscosity @ 100°			8.0		r	
	Viscosity @ 100°			8.0		r	
	Viscosity @ 100°			8.0 7.0 (CH(C) X Bu) 5.0 U) 4.0 u) 10 4.0 u) 3.0 3.0		r	
	100 50 0 127864 Viscosity @ 100° 15 14 Abnormal 8ase 6000 31 10 4bnormal			8.0 7.0 (\$HOX 6.0 ) (\$HOX 5.0 ) aquiniy 3.0 seg 2.0		r	
	100 50 0 127 14 Abnomal 51 4 50 12 12 50 100 100 100 100 100 100 100 100 100			8.0 7.0 (0)(10)(5.0 but 10)(5.0 but 10)(5.		r	
	Viscosity @ 100°	C		8.0 7.0 (0)(10)(0)(0)(0)(0)(0)(0)(0)(0)(0)(0)(0)(0)(0			
	100 50 0 127864 Viscosity @ 100° 15 14 Abnormal 8ase 6000 31 10 4bnormal	C		8.0 7.0 (0)(10)(5.0 but 10)(5.0 but 10)(5.			
	100 50 0 120 100 100 100 100 100 100 100 100	C		8.0 7.0 (b)(10) 9.0 9.0 9.0 9.0 9.0 9.0 1.0 1.0 0.0 0 0.0		Maz2222	
Laboratory	Viscosity @ 100° Viscosity @ 100° Base Base Cooling United States Cooling United States	C C C C C C C C C C C C C C		8.0 7.0 (0HOX Duu 94.0 94.0 1.0 2.0 1.0 2.0 1.0 0.0 20 1.0 0.0 20 1.0 0.0 20 1.0 0.0 20 1.0 0.0 20 1.0 0.0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		PERDUE FAR	MS - COFIEL
Sample No.	Viscosity @ 100° Viscosity @ 100° Base Base Control of the second	C TOT Madiso Recei	i <b>ved</b> : 06	8.0 7.0 (0HOX Duu 94.0 94.0 1.0 2.0 1.0 0.0 2 5, NC 27513 5 Feb 2024		PERDUE FAR	<b>MS - COFIEL</b> 2 PERDUE R
Sample No. Lab Number	Viscosity @ 100° Viscosity @ 100° Base Control of the second seco	C Teste	ived : 06 d : 06	8.0 7.0 (0HOX Duu 94.0 94.0 94.0 1.0 1.0 20 1.0 0.0 20 1.0 0.0 20 1.0 0.0 20 1.0 0.0 20 1.0 0.0 20 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	Aprili21	PERDUE FAR	MS - COFIEL 2 PERDUE R COFIELD, N US 2792
Lab Number Unique Number 12367 Test Package	Viscosity @ 100° Viscosity @ 100° bnomal bn	C Teste Diagr	ived : 06 id : 06 nosed : 06	8.0 7.0 9000 y 000	Aprili21	PERDUE FAR	<b>MS - COFIEL</b> 2 PERDUE R COFIELD, N US 2792
Sample No. Lab Number Unique Number Test Package cuss this sample repor	Viscosity @ 100° Viscosity @ 100°	C 01 Madiso Recei Teste Diagr	ived : 06 id : 06 nosed : 06 800-237-1369	8.0 7.0 9000 y tou 94.0 9 2.0 1.0 8 2.0 1.0 0.0 20 1.0 0.0 20 1.0 0.0 20 1.0 0.0 20 1.0 0.0 20 2.0 1.0 0.0 20 2.0 1.0 0.0 2.0 0 0.0 2.0 0 0.0 2.0 0 0.0 2.0 0 0.0 2.0 0 0.0 2.0 0 0.0 2.0 0 0.0 2.0 0 0.0 2.0 0 0.0 2.0 0 0.0 2.0 0 0.0 2.0 0 0 0.0 2.0 0 0 0	Aprili21	PERDUE FAR 24	MS - COFIEL 2 PERDUE R COFIELD, N US 2792 NY LASSITE

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