

## **OIL ANALYSIS REPORT**

Sample Rating Trend



Machine Id

#### 611826 Component Diesel Engine Fluid PETRO CANADA DURON SHP 10W30 (--- GAL)

### 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.

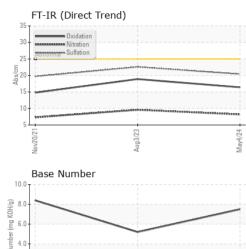
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0125203	PCA0102910	PCA0054757
Sample Date		Client Info		04 May 2024	03 Aug 2023	20 Nov 2021
Machine Age	mls	Client Info		140770	109107	46329
Oil Age	mls	Client Info		140770	109107	23000
Oil Changed		Client Info		Not Changd	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
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
Iron	ppm	ASTM D5185m	>100	24	31	16
Chromium	ppm	ASTM D5185m	>20	2	2	1
Nickel	ppm	ASTM D5185m	>4	<1	<1	<1
Titanium	ppm	ASTM D5185m		2	8	<1
Silver	ppm	ASTM D5185m	>3	<1	0	2
Aluminum	ppm	ASTM D5185m	>20	6	8	9
Lead	ppm	ASTM D5185m	>40	0	0	0
Copper	ppm	ASTM D5185m	>330	20	47	183
Tin	ppm	ASTM D5185m	>15	2	3	4
Antimony	ppm	ASTM D5185m				0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		<1	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	3	2	11
Barium	ppm	ASTM D5185m	0	1	1	0
Molybdenum	ppm	ASTM D5185m	50	57	54	46
Manganese	ppm	ASTM D5185m	0	<1	<1	1
Magnesium	ppm	ASTM D5185m	950	863	815	849
Calcium	ppm	ASTM D5185m	1050	1142	1264	1189
Phosphorus	ppm	ASTM D5185m	995	1066	939	972
Zinc	ppm	ASTM D5185m	1180	1201	1195	1061
Sulfur	ppm	ASTM D5185m	2600	2780	2551	2484
CONTAMINAN	TS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	4	5	2
Sodium	ppm	ASTM D5185m		2	2	2
Potassium	ppm	ASTM D5185m	>20	13	20	31
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.6	0.6	0.3
Nitration	Abs/cm	*ASTM D7624	>20	8.2	9.6	7.3
						10 7
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.4	22.6	19.7
Sulfation FLUID DEGRAD			>30 limit/base	20.4 current	22.6 history1	19.7 history2
			limit/base			
FLUID DEGRAD	DATION	method	limit/base	current	history1	history2

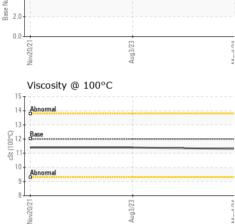
Report Id: MILPHINE [WUSCAR] 06194991 (Generated: 05/31/2024 07:31:55) Rev: 1

Contact/Location: ROSTY VITER - MILPHINE



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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	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	12.00	11.3	11.4	11.4
GRAPHS						
Iron (ppm)			100	Lead (ppm)		
0 - Severe				Severe		
0 - Abnormal			60 ط 40	Abnormal		
0-			20			
	23		24		23	
Nov20/2	Aug3/23		May4/24	Nov20/2	Aug3/23	
Aluminum (ppm)			50	Chromium (p	pm)	
0 Severe			40	Severe		
0 - Abnormal			E 20			
0			10			
27 27 27	Aug3/23 -		4/24		Aug3/23 -	
Nov20/21	Aug		May4/24	Nov20/2	Aug	
Copper (ppm)				Silicon (ppm)		
<sup>0</sup> Severe				Severe		
0			60			
0			튭 40	Abnormal		
10			20	Abnormal		
0			0			
Nov20/21	Aug3/23		May4/24	Nov20/21	Aug3/23	
Nov	Au		M	Nov	Au	
Viscosity @ 100°C			10.0	Base Number		
4 Abnormal			( <sup>B</sup> /Ho) 8.0			
			Ĕ 6.0			
2 Base						
0 Abnormal			(0) 6.0 9.0 gene 888 892 802 892 802 802 802 802 802 802 802 802 802 80			
8			0.0	-	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	
Nov20/2	Aug3/23		May4/24	Nav20/2	Aug3/23	
			10	6	3	

Laboratory Sample No. ÷ Lab Number : 06194991 : 31 May 2024 PHILADELPHIA, PA Tested : 31 May 2024 - Wes Davis Unique Number : 11057114 Diagnosed US 19116 Test Package : MOB 1 (Additional Tests: TBN) Contact: ROSTY VITER Certificate 12367 To discuss this sample report, contact Customer Service at 1-800-237-1369. rviter@millertransgroup.com \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: (215)552-9832 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: (215)552-9892

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