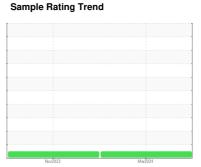


OIL ANALYSIS REPORT







WL156 Component

Diesel Engine

PETRO CANADA DURON SHP 15W40 (--- 0

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

There is no indication of any contamination in the

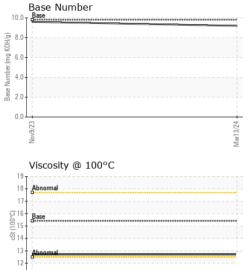
Fluid Condition

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

GAL)			Nov2023	Mar2024		
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number	VII (TIOI)	Client Info	mmusacc	PCA0109026	PCA0084361	
Sample Date		Client Info		13 Mar 2024	09 Nov 2023	
Machine Age	hrs	Client Info		31295	31285	
Oil Age	hrs	Client Info		500	31285	
Oil Changed	1110	Client Info		Changed	N/A	
Sample Status				NORMAL	NORMAL	
CONTAMINATI	ON	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	
Water		WC Method	>0.2	NEG	NEG	
Glycol		WC Method		NEG	NEG	
WEAR METALS	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	20	16	
Chromium	ppm	ASTM D5185m	>20	<1	<1	
Nickel	ppm	ASTM D5185m	>4	<1	<1	
Titanium	ppm	ASTM D5185m		<1	<1	
Silver	ppm	ASTM D5185m	>3	<1	0	
Aluminum	ppm	ASTM D5185m	>20	2	2	
Lead	ppm	ASTM D5185m	>40	2	1	
Copper	ppm	ASTM D5185m	>330	8	7	
Tin	ppm	ASTM D5185m	>15	1	0	
Vanadium	ppm	ASTM D5185m		<1	0	
Cadmium	ppm	ASTM D5185m		<1	<1	
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	46	56	
Barium	ppm	ASTM D5185m	0	1	9	
Molybdenum	ppm	ASTM D5185m	60	54	55	
Manganese	ppm	ASTM D5185m	0	1	<1	
Magnesium	ppm	ASTM D5185m	1010	411	411	
Calcium	ppm	ASTM D5185m	1070	1727	1719	
Phosphorus	ppm	ASTM D5185m	1150	948	1022	
Zinc	ppm	ASTM D5185m	1270	1147	1159	
Sulfur	ppm	ASTM D5185m	2060	3182	3743	
CONTAMINAN	TS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	10	5	
Sodium	ppm	ASTM D5185m		<1	2	
Potassium	ppm	ASTM D5185m	>20	3	11	
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.7	0.7	
Nitration	Abs/cm	*ASTM D7624	>20	6.9	7.0	
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.4	20.6	
FLUID DEGRAD	ATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.4	16.4	
Base Number (BN)	mg KOH/g		9.8	9.2	9.6	
(= / •/	99			-		



OIL ANALYSIS REPORT



VISUAL		method				history2
White Metal	scalar	*Visual	NONE	NONE	NONE	
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
Precipitate	scalar	*Visual	NONE	NONE	NONE	
Silt	scalar	*Visual	NONE	NONE	NONE	
Debris	scalar	*Visual	NONE	NONE	NONE	
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
Appearance	scalar	*Visual	NORML	NORML	NORML	
Odor	scalar	*Visual	NORML	NORML	NORML	
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	
Free Water	scalar	*Visual		NEG	NEG	
FLUID PROPE	RTIES	method	limit/base	current	history1	history2

Visc @ 100°C	cSt	ASTM D445	15.4	12.7	12.7	
GRAPHS						
Iron (ppm) 250 200 Severe Abnormal			Mar13/24	Lead (ppm) 100 Severe 80 Abnormal 20 0 EEEBook		Mar13/24
Aluminum (ppm)				Chromium ((ppm)	
40 Severe				40 - Severe		
Abnormal				Abnormal		
0				0		
Nov9/23			Mar13/24	Nov9/23		Mar13/24
Copper (ppm) Severe Portionnal				Silicon (ppm	1)	
E 200				Abnormal		
Nov9/23 4			Mar13/24	Nov9/23		Mar13/24 [
Viscosity @ 100°C			Mar13/24 M	Base Number (mg KOH(g) 10.0	er	Mar13/24



Laboratory Sample No.

: PCA0109026 Lab Number : 06127467 Unique Number : 10941618

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 25 Mar 2024 **Tested**

: 26 Mar 2024 Diagnosed : 27 Mar 2024 - Don Baldridge

Kemp Quarries - Pryor Stone - Pryor 1050 E 520 Rd

Pryor, OK US 74361 Contact:

Test Package : MOB 1 (Additional Tests: TBN) To discuss this sample report, contact Customer Service at 1-800-237-1369.

pryor@pryorstone.com T: F:

* - 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)