

OIL ANALYSIS REPORT

Walgreens [Walgreens] 136A62535

Componen **Diesel Engine**

PETRO CANADA DURON SHP 10W30 (11 GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

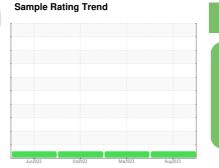
All component wear rates are normal.

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.





NORMAL

SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0101036	PCA0095138	PCA0079944
Sample Date		Client Info		22 Aug 2023	10 Mar 2023	06 Oct 2022
Machine Age	mls	Client Info		208961	149208	88892
Oil Age	mls	Client Info		25701	60316	42541
Oil Changed		Client Info		Changed	N/A	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATI	ON	method	limit/base	current	history1	history2
Fuel		WC Method	>2.0	<1.0	<1.0	<1.0
Glycol		WC Method		NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	42	42	35
Chromium	ppm	ASTM D5185m	>20	2	2	3
Nickel	ppm	ASTM D5185m	>4	0	<1	<1
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	10	10	39
Lead	ppm	ASTM D5185m	>40	0	0	<1
Copper	ppm	ASTM D5185m	>330	8	6	17
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	9	4	4
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	50	63	67	64
Manganese	ppm	ASTM D5185m	0	<1	1	2
Magnesium	ppm	ASTM D5185m	950	567	856	877
Calcium	ppm	ASTM D5185m	1050	1886	1124	1273
Phosphorus	ppm	ASTM D5185m	995	1076	892	979
Zinc	ppm	ASTM D5185m	1180	1344	1155	1249
Sulfur	ppm	ASTM D5185m	2600	3800	2998	3506
CONTAMINAN	TS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	11	9	9
Sodium	ppm	ASTM D5185m		16	<1	3
Potassium	ppm	ASTM D5185m	>20	16	18	98
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	1.3	1	0.8
Nitration	Abs/cm	*ASTM D7624	>20	12.7	10.2	10.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	27.0	22.3	23.2
FLUID DEGRAD		method	limit/base	current	history1	history2

20.3

6.0

Abs/.1mm *ASTM D7414 >25

Base Number (BN) mg KOH/g ASTM D2896

Oxidation

18.2

7.3

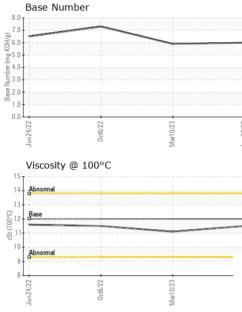
16.8

5.9



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VISUAL



	VISUAL							
	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	
Mar1 0/23	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML	
Mar1	Appearance 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	11.5	11.1	11.5	
	GRAPHS							
	Ferrous Alloys							
	60 iron							
Mar10/23	50 - sessesses chromium							
W	40-							
	<u>ال</u> 30-							
	20-							
	10-							
	Jun 24/22 0ct6/22		Mar10/23	Aug22/23				
	7		Ma	Auc				
	Non-ferrous Meta	ls						
	70 copper							
	60 - Lead							
	50							
	E 40							
	50							
	20-							
	10-							
	Jun 24/22 0.ct6/22		Mar10/23	Aug22/23				
	Jun J		Mar	Aug				
	Viscosity @ 100°C	2			Base Number			
	14 - Abnormal			8.0				
	-			7.0- ©c.0				
	13 © 12 Base			(^D) 6.0 HOX 5.0 July 10 July				
	G 12 Base							
	ಕ್ಷ 11 -			gu 3.0				
	10 Abnormal			2.0-				
	9 -			1.0				
	8			0.0				
	Jun 24/22 0.ct6/22		Mar10/23	Aug22/23	Jun24/22	Uctb/22 Mac10/23		
	Junt		Mar	Augi	unf	Marl	3	
Unique	le No. : PCA0101036 umber : 05937002	Received Diagnose				Transervice - Shop 1373 - Berkeley-Anderson/Penderg 101 Alliance Parkw Willamston, S US 296 Contact: Sonny Bouch sboucher@transervice.cd		

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