

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.

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.

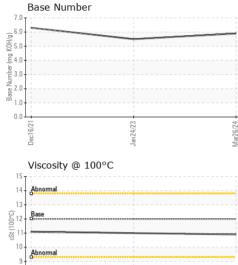
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0111502	PCA0089412	PCA0059015
Sample Date		Client Info		26 Mar 2024	24 Jan 2023	16 Dec 2021
Machine Age	mls	Client Info		188890	151371	40000
Oil Age	mls	Client Info		39700	40000	40000
Oil Changed		Client Info		Changed	Changed	N/A
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	60	27	36
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	4	0	1
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>3	<1	<1	<1
Aluminum	ppm	ASTM D5185m	>20	4	3	15
Lead	ppm	ASTM D5185m	>40	<1	1	4
Copper	ppm	ASTM D5185m	>330	57	28	160
Tin	ppm	ASTM D5185m	>15	<1	1	2
Antimony	ppm	ASTM D5185m				0
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	<1	0	2
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	50	58	58	56
Manganese	ppm	ASTM D5185m	0	2	1	1
Magnesium	ppm	ASTM D5185m	950	877	831	891
Calcium	ppm	ASTM D5185m	1050	1076	1109	1216
Phosphorus	ppm	ASTM D5185m	995	927	764	876
Zinc	ppm	ASTM D5185m	1180	1198	1032	1137
Sulfur	ppm	ASTM D5185m	2600	3157	2869	2197
CONTAMINAN	TS	method	limit/base	current	history1	history2
Silicon	ppm		>25	6	6	9
Sodium	ppm	ASTM D5185m		2	3	2
Potassium	ppm	ASTM D5185m	>20	7	6	37
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.5	0.5	0.6
Nitration	Abs/cm	*ASTM D7624	>20	10.3	10.1	10.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.8	21.5	22.5
FLUID DEGRAD	DATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.5	17.1	18
Base Number (BN)	mg KOH/g	ASTM D2896		5.9	5.5	6.3
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Contact/Location: NELSON WALLACE - PERLEWNC



Dec16/21

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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
Jan24/23 -	6/24 -	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Jan2	Mar26/24	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
°C		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	10.9	11.0	11.1
		GRAPHS						
		Ferrous Alloys						
23	r.	iron						
Jan 24/23	1.00-1	50 - second chromium						
7	4	40 -		/				
		Ē 30-						
		20						
		10						
		04	<u></u>	CONTRACTOR OF THE OWNER OWN	4			
		Dec16,2	Jan 24/23		Mar26/24			
		□ Non-ferrous Meta			Z			
			15					
		140 - copper						
		120 - 120 -						
		100						
		<u>ة</u> 80						
		60						
		40 -	1_	and the second design of the				
		20 -						
		0 3	23		24			
		Dec16/21	lan 24/23		lar26/24			
		□ Viscosity @ 100°0	7		Z			
		¹⁵			7.0	Base Numbe	er	
		14 - Abnormal			6.0			
		13-						
		D 12 Base			<u>و</u> 40			
		0012 - Base						
		10			(0, 5.0 HOX but 4.0 arguma 3.0 8g 2.0			
		Abnormal						
		9			1.0	*		
		δ 22 23	/23		0.0	/21+	23 -	24
		Dec16/21	Jan 24/23		Mar26/24	Dec16/2	Jan 24/23	Mar26/24
	- b - wet - ····		M M					
	aboratory ample No.	: WearCheck USA - 50 : PCA0111502	1 Madisor Receiv			MS - Lewiston		
	alliple No. ab Number			29 Mar 2024 01 Apr 2024		210 GRIFFINS QUARTER RD LEWISTON, NC		
	nique Number			sted : 01 Apr 2024 ignosed : 02 Apr 2024 - Don Baldridge			-	US 27849
Certificate L2367 Te	est Package	: FLEET	-		-	-	ON WALLACE	
		contact Customer Serv	nelson.wallace					
		are outside of the ISO 1					06-2012)	T:
Statements of cor	normity to sp	pecifications are based of	un ine sim	pie accepta	nce decision	rule (JCGM 1	00:2012)	F: