

### **OIL ANALYSIS REPORT**

#### Sample Rating Trend



# Machine Id 20483

Component **Diesel Engine** 

#### Fluid PETRO CANADA DURON SHP 10W30 (15 Q

#### 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

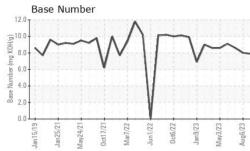
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

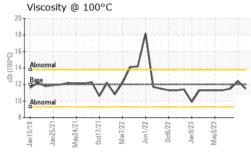
QTS)									
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2			
Sample Number		Client Info		PCA0102794	PCA0102000	PCA0100141			
Sample Date		Client Info		10 Sep 2023	06 Aug 2023	12 Jul 2023			
Machine Age	hrs	Client Info		12276	12276	12276			
Oil Age	hrs	Client Info		12276	12276	12276			
Oil Changed		Client Info		N/A	N/A	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			
Glycol		WC Method		NEG	NEG	NEG			
WEAR METAL	S	method	limit/base	current	history1	history2			
Iron	ppm	ASTM D5185m	>100	24	19	13			
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1			
Nickel	ppm	ASTM D5185m	>4	0	0	0			
Titanium	ppm	ASTM D5185m		0	0	0			
Silver	ppm	ASTM D5185m	>3	0	<1	0			
Aluminum	ppm	ASTM D5185m	>20	<1	2	1			
Lead	ppm	ASTM D5185m	>40	0	<1	0			
Copper	ppm	ASTM D5185m	>330	<1	1	<1			
Tin	ppm	ASTM D5185m	>15	0	0	0			
Vanadium	ppm	ASTM D5185m		<1	0	0			
Cadmium	ppm	ASTM D5185m		0	0	0			
ADDITIVES		method	limit/base	current	history1	history2			
Boron	ppm	ASTM D5185m	2	0	<1	2			
Barium	ppm	ASTM D5185m	0	0	2	0			
Molybdenum	ppm	ASTM D5185m	50	67	71	59			
Manganese	ppm	ASTM D5185m	0	<1	<1	<1			
Magnesium	ppm	ASTM D5185m	950	1052	994	960			
Calcium	ppm	ASTM D5185m	1050	1218	1282	1034			
Phosphorus	ppm	ASTM D5185m	995	1073	1145	1055			
Zinc	ppm	ASTM D5185m	1180	1353	1367	1293			
Sulfur	ppm	ASTM D5185m	2600	3519	3528	3634			
CONTAMINAN	ITS	method	limit/base	current	history1	history2			
Silicon	ppm	ASTM D5185m	>25	4	3	3			
Silicon Sodium	ppm ppm	ASTM D5185m ASTM D5185m	>25	4 <1	3 0	3 <1			
		ASTM D5185m	>25 >20						
Sodium	ppm	ASTM D5185m		<1	0	<1			
Sodium Potassium INFRA-RED	ppm	ASTM D5185m ASTM D5185m	>20	<1 2	0 <1	<1 0			
Sodium Potassium	ppm ppm	ASTM D5185m ASTM D5185m method	>20 limit/base >3	<1 2 current	0 <1 history1	<1 0 history2			
Sodium Potassium INFRA-RED Soot %	ppm ppm %	ASTM D5185m ASTM D5185m method *ASTM D7844	>20 limit/base >3	<1 2 current 0.6	0 <1 history1 0.4	<1 0 history2 0.3			
Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm % Abs/cm Abs/.1mm	ASTM D5185m ASTM D5185m *ASTM D7844 *ASTM D7844 *ASTM D7624	>20 limit/base >3 >20	<1 2 current 0.6 9.4	0 <1 history1 0.4 9.5	<1 0 history2 0.3 8.2			
Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm % Abs/cm Abs/.1mm	ASTM D5185m ASTM D5185m *ASTM D7844 *ASTM D7844 *ASTM D7624	>20 limit/base >3 >20 >30	<1 2 current 0.6 9.4 18.8	0 <1 history1 0.4 9.5 19.8	<1 0 history2 0.3 8.2 18.5			



## **OIL ANALYSIS REPORT**

VISUAL





	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
1~~	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
V -	Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
	Silt	scalar	*Visual	NONE	NONE	NONE	NONE
	Debris	scalar	*Visual	NONE	NONE	NONE	NONE
	Sand/Dirt		*Visual	NONE	NONE	NONE	NONE
23 -		scalar scalar	*Visual	NORML	NORML	NORML	NORML
Jan 9/23 May 3/23 Aug 6/23	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		method	limit/base	current	history1	history2
	Visc @ 100°C	cSt	ASTM D445	12.00	11.5	12.4	11.5
	GRAPHS						
V	Ferrous Alloys						
23	140 iron	1	10101				
Jan 9/23 May 3/23	120 - nickel	- 1/1					
	100-	141					
Had	80	1-1-					
	60- A A	11	2-42-42-42-4				
	40-		Λ				
	20-1	5	WL	/			
	2 2 2	22	23	23			
	Jan 15/19 Jan 25/21 May 24/21 Oct 17/21	Mar7/22 Jun1/22	0ct6/22 Jan9/23 May3/23	Aug6/23			
	Non-ferrous Meta	ls					
	<sup>35</sup>		1000100000	ostos			
	30 - copper lead						
	25 - tin						
	= 20						
	20- 15-						
	10	Δ -					
	5-	M	1.11				
			Sala	-			
	Jan 15/19 Jan 25/21 May24/21 Oct17/21	Mar7/22 Jun1/22	0ct6/22 Jan9/23 May3/23	Aug6/23			
	Jan Jan May Oct	Ma	Jar Mar	Aug			
	Viscosity @ 100°	C			Base Number		
	20			12		٨	
	18			10	.0	1/1-	<b>N</b>
	16	1		«KOH/g)	Jan Martin	NU	Im
10000	14 - Abnormal	1		Bu			V
11 10		/ 1		a G.			
	12	1-5	<u> </u>		.0+		
	10 Abnormal		V	<u>2</u>	0-		
	8			0.	0 L		
	Jan 15/19 Jan 25/21 May 24/21 Oct 17/21	Mar7/22 Jun1/22	0ct6/22 Jan9/23 May3/23	Aug6/23	Jan 15/19 Jan 25/21 May 24/21	0ct6/22 0ct6/22	Jan9/23 May3/23 Aug6/23
	Jair Mai Oc	Μ'n	Ja Ma	Au	Jar Mar	5 V P O	Ji. Au
Laboratory	: WearCheck USA -	501 Madis	son Ave., Ca	ry, NC 2751	3	PERDUE FAF	RMS - DILLON
Sample No.	: PCA0102794	Received	<b>1</b> : 21 :	Sep 2023			HWY 9 WEST
Lab Number	: 05957436	Diagnos		Sep 2023			DILLON, SC
Unique Number	: 10658649	Diagnost	ician : We	s Davis		Contact	US 29536 EVIN HOOKS
Test Package	: FLEET	ine at 1 C	00 227 1260	<b>`</b>			EVIN HOOKS



 Certificate L2367
 Test Package
 : FLEET

 To discuss this sample report, contact Customer Service at 1-800-237-1369.
 \*

 \* - 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)

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