

OIL ANALYSIS REPORT





PETRO CANADA DURON SHP 10W30 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

Metal levels are typical for a components first oil change.

Contamination

Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. 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.

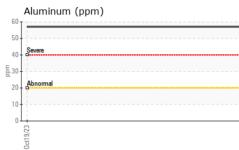
AL)				0ct2023		
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0105264		
Sample Date		Client Info		19 Oct 2023		
Machine Age	hrs	Client Info		1730		
Oil Age	hrs	Client Info		1730		
Oil Changed		Client Info		N/A		
Sample Status				NORMAL		
CONTAMINAT	ON	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0		
Glycol		WC Method		NEG		
WEAR METAL	S .	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	92		
Chromium	ppm	ASTM D5185m	>20	2		
Nickel	ppm	ASTM D5185m	>4	<1		
Titanium	ppm	ASTM D5185m		<1		
Silver	ppm	ASTM D5185m	>3	<1		
Aluminum	ppm	ASTM D5185m	>20	57		
Lead	ppm	ASTM D5185m	>40	<1		
Copper	ppm	ASTM D5185m	>330	22		
Tin	ppm	ASTM D5185m	>15	2		
Vanadium	ppm	ASTM D5185m		0		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	11		
Barium	ppm	ASTM D5185m	0	0		
Molybdenum	ppm	ASTM D5185m	50	22		
Manganese	ppm	ASTM D5185m	0	3		
Magnesium	ppm	ASTM D5185m	950	917		
Calcium	ppm	ASTM D5185m	1050	1398		
Phosphorus	ppm	ASTM D5185m	995	921		
Zinc	ppm	ASTM D5185m	1180	1142		
Sulfur	ppm	ASTM D5185m	2600	3235		
CONTAMINAN	TS	method	limit/base	current	history1	history2
				oanoni		
Silicon	ppm	ASTM D5185m	>25	14		
	ppm ppm	ASTM D5185m ASTM D5185m				
Sodium			>25	14		
Sodium	ppm	ASTM D5185m	>25	14 4		
Sodium Potassium INFRA-RED	ppm	ASTM D5185m ASTM D5185m	>25 >20	14 4 147		
Sodium Potassium INFRA-RED Soot %	ppm ppm	ASTM D5185m ASTM D5185m method	>25 >20 limit/base >3	14 4 147 current	 history1	 history2
Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm	ASTM D5185m ASTM D5185m method *ASTM D7844	>25 >20 limit/base >3	14 4 147 current 0.5	 history1	 history2
Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm % Abs/cm Abs/.1mm	ASTM D5185m ASTM D5185m *ASTM D7844 *ASTM D7824 *ASTM D7624	>25 >20 limit/base >3 >20	14 4 147 current 0.5 12.3	 history1 	 history2
Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm % Abs/cm Abs/.1mm	ASTM D5185m ASTM D5185m *ASTM D7844 *ASTM D7824 *ASTM D7624	>25 >20 limit/base >3 >20 >30	14 4 147 <u>current</u> 0.5 12.3 27.2	 history1 	 history2



0ct19/23

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Viscosity @ 100°C 15 14 Abnorma 13 cSt (100-C) 11 Ba Abnorma 0ct19/23 Aluminum (ppm) 60 50 40 Heime 30 20 Abnorma 10 0

	VISUAL		method	limit/base	current	history1	history2
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
	Precipitate	scalar	*Visual	NONE	NONE		
	Silt	scalar	*Visual	NONE	NONE		
	Debris	scalar	*Visual	NONE	NONE		
	Sand/Dirt	scalar	*Visual	NONE	NONE		
0ct19/23	Appearance	scalar	*Visual	NORML	NORML		
0	Odor	scalar	*Visual	NORML	NORML		
	Emulsified Water	scalar	*Visual	>0.2	NEG		
	Free Water	scalar	*Visual		NEG		
	FLUID PROPE	ERTIES	method	limit/base	current	history1	history2
-	Visc @ 100°C	cSt	ASTM D445	12.00	11.9		
	GRAPHS						
	Non-ferrous Meta	Ils		Oct19/23			
	Viscosity @ 100°	С			Base Number		
	15			5.0	base number		
	14 - Abnormal			4.0			
	-			- 4 0 -			
	13			B/H0			
	13			MOH/0 3.0			
	13			•0.6 mper (mg KOH/g)			
	T			(B)H0 BW BW Per BW BW 2.0- Se			
	13 6 12 - Base 3 11 -			(6,10) (6,10) 3.0,- (mg KOH(0,10) 8 Base Number 1.0,- 1.0,-			
	13 600 10 10 6bnormal			1.0			
	Base Base Base Base Base Abnormal 9 8			0.0-	19/23		
Laboratory Sample No.	13 600 10 10 6bnormal	Received	d :06 l	0.0	526 june 101	5 E. WESTING	AX TRUCKIN HOUSE BLV
Laboratory	Base Base Base Base Base Base Base Base		d :061 ed :071	ry, NC 27513 Nov 2023		5 E. WESTING CH	AX TRUCKIN

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

F: (704)588-2901