

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id ST261

Component Diesel Engine

Fluid

PETRO CANADA DURON UHP 5W40 (--- 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 condition of the oil is acceptable for the time in service.

SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PC0082215	PC0047870	
Sample Date		Client Info		05 Mar 2024	21 Jun 2021	
Machine Age	hrs	Client Info		3085	1964	
Oil Age	hrs	Client Info		0	1540	
Oil Changed		Client Info		Changed	Changed	
Sample Status				NORMAL	NORMAL	
CONTAMINAT	ION	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 METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	10	64	
Chromium	ppm	ASTM D5185(m)	>20	<1	1	
Nickel	ppm	ASTM D5185(m)	>4	0	<1	
Titanium	ppm	ASTM D5185(m)		0	0	
Silver	ppm	ASTM D5185(m)	>3	0	0	
Aluminum	ppm	ASTM D5185(m)	>20	2	3	
Lead	ppm	ASTM D5185(m)	>40	0	0	
Copper	ppm	ASTM D5185(m)	>330	<1	2	
Tin	ppm	ASTM D5185(m)	>15	0	<1	
Antimony	ppm	ASTM D5185(m)	210	0	0	
Vanadium	ppm	ASTM D5185(m)		0	0	
Beryllium	ppm	ASTM D5185(m)		0	0	
Cadmium	ppm	ASTM D5185(m)		0	0	
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	65	51	45	
Barium	ppm	ASTM D5185(m)	0	0	<1	
Molybdenum	ppm	ASTM D5185(m)	65	56	58	
Manganese	ppm	ASTM D5185(m)	0	0	<1	
Magnesium		ASTM D5185(m)	1160	1093	1171	
Calcium	ppm ppm	ASTM D5185(m)	820	828	893	
Phosphorus		ASTM D5185(m)	1160	1004	1063	
Zinc	ppm	ASTM D5185(m)	1260	1149	1241	
Sulfur	ppm	ASTM D5185(m)	3000	2889	2842	
Lithium	ppm ppm	ASTM D5185(m) ASTM D5185(m)	3000	<1	<1	
CONTAMINAN		method	limit/base		history1	history2
Silicon	ppm	ASTM D5185(m)	>25	5	13	
Sodium	ppm	ASTM D5185(m)		4	5	
Potassium	ppm	ASTM D5185(m)	>20	<1	1	
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	0	0	
Nitration	Abs/cm	ASTM D7624*	>20	8.1	8.2	
Sulfation	Abs/.1mm	ASTM D7415*	>30	19.1	18.7	
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120-

110

cSt (40°C) 06 00 00 Base

> 80 70

120

110

cSt (40°C) 06 B

> 80 70

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iscosity @ 40°C			FLUID DEGRA	DATION	method	limit/ba	se current	history1	history2
Abnormal			Oxidation	Abs/.1mm	ASTM D7414*	>25	17.6	17.2	
			VISUAL		method	limit/ba	se current	history1	history2
se			Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	
			Free Water	scalar	Visual*	- 012	NEG	NEG	
normal			FLUID PROPE	RTIES	method	limit/ba	se current	history1	history2
		Mar5/24 -	Visc @ 40°C	cSt	ASTM D7279(m)	95.1	86.8	83.0	
		ž	Visc @ 40 C Visc @ 100°C	cSt	ASTM D7279(III) ASTM D7279(m)	14.3	14.1	13.4	
scosity @ 40°C			Viscosity Index (VI)	Scale	ASTM D2270*	169	167	164	
normal			GRAPHS						
			Iron (ppm)				Lead (ppm)		
se			250				100 Severe		
			200 + 4				80 -		
normal			Abnormal				Abnormal		
		V.C.							
		h.ñE	50				20		
			Jun21/21			Mar5/24	Jun21/21		
						Ma			
			Aluminum (ppm)				Chromium (opm)	
			40 - Severe				40 - Severe		
			30				30-		
			Abnormal			-	Abnormal		
			10 -				10-		
			0			_			
			Jun21/21			Mar5/24	Jun21/21		
			⊰ Copper (ppm)			2	⊰ Silicon (ppm	\ \	
			400 Severe				80 Sincorr (ppm))	
			300				60 -		
			톨 200 -				Ē 40 -		
							Abnormal		
			100-				20-		
			0			24	0		
			Jun21/21			Mar5/24	Jun21/21		
		Viscosity @ 100°C	2			Soot %			
		18				6.0 Severe			
		16				5.0 - 0 4.0			
		(2015 0015 14 83				Abnormal			
			134				2.0-		
			12 - Abnormal			-	1.0		
			114			5/24	12 0.0		
			Jun21			Mar5/24	Jun21		
	A	Laboratory	WearCheck C8 117		u Lino Burlin	aton ON	171540 Groon Infrac	tructure and Partners Inc (CIDI)	- 206 - Sharing & Founda
877 D (Laboratory Sample No.	: WearCheck - C8-117 : PC0082215	s Appleby Recei		gton, ON 3 Mar 202		tructure and Partners Inc (GIPI) 151	Ram Forest F
	ISO 17025:2017 Accredited	Lab Number		Teste		3 Mar 202			Stouffville, C
98 A.	Accredited Laboratory	Unique Number Test Package	: 5747758 : MOB 1 (Additional Te	Diagr ests: KV4		iviar 2024	- Wes Davis	Co	CA L4A 20 ntact: Bill Act

Validity of results and interpretation are based on the sample and information as supplied.

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