

OIL ANALYSIS REPORT

Production de l'énergie électrique 13B02#01 - Diesel auxiliaire 1 (S/N 524101274) Component

Diesel Engine Fluid

PETRO CANADA DURON SHP 15W40 (--- GAL)

Sample Rating Trend



NORMAL

DIAGNOSIS	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Recommendation	Sample Number		Client Info		WC0866042	WC0866051	
Resample at the next service interval to monitor.	Sample Date		Client Info		20 Jan 2024	22 Dec 2023	
Please specify the component make and model	Machine Age	hrs	Client Info		36497	35962	
with your next sample.	Oil Age	hrs	Client Info		2000	0	
Wear	Oil Changed		Client Info		Changed	N/A	
All component wear rates are normal.	Sample Status				NORMAL	NORMAL	
Contamination There is no indication of any contamination in the	CONTAMINATIO	N	method	limit/base	current	history1	history2
oil.	Fuel		WC Method		<1.0	<1.0	
Fluid Condition	Water		WC Method	>0.2	NEG	NEG	
The condition of the oil is acceptable for the time in service.	Glycol		WC Method		NEG	NEG	
Service.	WEAR METALS		method	limit/base	current	history1	history2
	Iron	ppm	ASTM D5185(m)	>100	10	8	
	Chromium	ppm	ASTM D5185(m)	>20	0	0	
	Nickel	ppm	ASTM D5185(m)	>4	<1	0	
	Titanium	ppm	ASTM D5185(m)		0	0	
	Silver	ppm	ASTM D5185(m)	>3	0	0	
	Aluminum	ppm	ASTM D5185(m)	>20	1	1	
	Lead	ppm	ASTM D5185(m)	>40	0	0	
	Copper	ppm	ASTM D5185(m)	>330	1	1	
	Tin	ppm	ASTM D5185(m)	>15	0	0	
	Antimony	ppm	ASTM D5185(m)		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)	0	2	2	
	Barium	ppm	ASTM D5185(m)	0	0	0	
	Molybdenum	ppm	ASTM D5185(m)	60	62	62	
	Manganese	ppm	ASTM D5185(m)	0	0	0	
	Magnesium	ppm	ASTM D5185(m)	1010	1017	1011	
	Calcium	ppm	ASTM D5185(m)	1070	1127	1102	
	Phosphorus	ppm	ASTM D5185(m)		1035	1039	
	Zinc	ppm	ASTM D5185(m)	1270	1251	1223	
	Sulfur	ppm	ASTM D5185(m)		2743	2759	
	Lithium	ppm	ASTM D5185(m)		<1	<1	
	CONTAMINANTS	\$	method	limit/base	current	history1	history2
	Silicon	ppm	ASTM D5185(m)	>25	2	2	
	Sodium	ppm	ASTM D5185(m)		-	<1	
	Potassium	ppm	ASTM D5185(m)	>20	<1	<1	
	INFRA-RED		method	limit/base	current	history1	history2
	Soot %	%	ASTM D7844*	>3	0.2	0.1	
	Nitration	Abs/cm			7.6	7.3	
	Sulfation		ASTM D7024 ASTM D7415*		19.7	19.5	
	Junation	MU3/.111111	A01WD7410	200	13./	10.0	

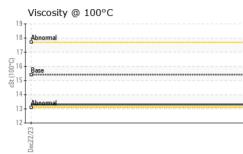
Contamination

Fluid Condition



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FLUID DEGRADATION method



				iiiiii/base			
	Oxidation	Abs/.1mm	ASTM D7414*	>25	16.3	16.0	
	VISUAL		method	limit/base	current	history1	history2
	White Metal	scalar	Visual*	NONE	NONE	NONE	
	Yellow Metal	scalar	Visual*	NONE	NONE	NONE	
	Precipitate	scalar	Visual*	NONE	NONE	NONE	
)/24	Silt	scalar	Visual*	NONE	NONE	NONE	
Jan20/24	Debris	scalar	Visual*	NONE	NONE	NONE	
	Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	
	Appearance		Visual*	NORML	NORML	NORML	
	Odor	scalar		NORML	NORML	NORML	
	Emulsified Water		Visual*	>0.2	NEG	NEG	
	Free Water	scalar	Visual*		NEG	NEG	
	FLUID PROPERT	FIES	method	limit/base	current	history1	history2
	Visc @ 100°C	cSt	ASTM D7279(m)	15.4	13.3	13.3	
	GRAPHS						
	Ferrous Alloys						
	iron						
	8 - chromium						
	6						
	2						
	0						
	Dec22/23			Jan 20/24			
	Dec			Jan			
	Non-ferrous Metal	IS					
	copper						
	8 - Internet lead						
	6						
	2-						
	2-			4			
	2 0 E272723			n20/24			
	2 0 Viccosity @ 10090			Jan20/24 &			
	Viscosity @ 100°C		******	Jan 20/24			
	Viscosity @ 100°C	2		Jan 2024			
	Viscosity @ 100°C	2		Jan20/24			
	Viscosity @ 100°C			Jan20/24			
	Viscosity @ 100°C	2		Jan2024			
	Viscosity @ 100°C	2		Jan 20/24			
	Viscosity @ 100°C			Jan 2024			
	Viscosity @ 100°C						
	Viscosity @ 100°C						
	Viscosity @ 100°C			Jan20/24			
CAL A Laboratory	Viscosity @ 100°C	75 Appleb		horizon, ON L7I	_ 5H9	Canadian	ı Coast Gua
CALA Laboratory Sample No.	Viscosity @ 100°C	75 Appleb Recieved	: 24 J	horizon, ON L7I Jan 2024		Canadian erre Radisson, 101	Boul. Chample
Laboratory Sample No. 17025:2017 Lab Number	Viscosity @ 100°C	75 Appleb Recieved Diagnosed	: 24 J d : 24 J	tington, ON L7I Jan 2024 Jan 2024			Quebec, C
Laboratory Sample No. Lab Number Unique Number	Viscosity @ 100°C	75 Appleb Recieved	: 24 J d : 24 J	horizon, ON L7I Jan 2024		erre Radisson, 101	Boul. Chample Quebec, C CA G1K 7
CALA Laboratory Sample No. 17025:2017 Lab Number credited Unique Number	Viscosity @ 100°C	75 Appleb Recieved Diagnosed Diagnostic	: 24 J d : 24 J cian : Wes	tington, ON L7I Jan 2024 Jan 2024 S Davis	CCGS Pie	erre Radisson, 101	Boul. Champl Quebec, C CA G1K 7 ierre Radiss

ied, (e) tested at external lab. Validity of results and interpretation are based on the sample and information as supplied.

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