

OIL ANALYSIS REPORT

Sample Rating Trend





Machine Id 4623M Component

Fluid

Diesel Engine

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

Recommendation

Resample at the next service interval to monitor.

Wear

Metal levels are typical for a components first oil change.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

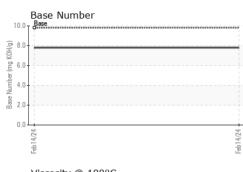
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

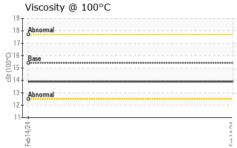
ON SHP 15W40 (- GAL)			Feb2024		
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0110117		
Sample Date		Client Info		14 Feb 2024		
Machine Age	hrs	Client Info		21084		
Oil Age	hrs	Client Info		21084		
Oil Changed		Client Info		Not Changd		
Sample Status				NORMAL		
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>3.0	<1.0		
Water		WC Method	>0.2	NEG		
Glycol		WC Method		NEG		
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>75	19		
Chromium	ppm	ASTM D5185m	>5	2		
Nickel	ppm	ASTM D5185m	>4	<1		
Titanium	ppm	ASTM D5185m	>2	<1		
Silver	ppm	ASTM D5185m	>2	0		
Aluminum	ppm	ASTM D5185m	>15	3		
Lead	ppm	ASTM D5185m	>25	<1		
Copper	ppm	ASTM D5185m	>100	5		
Tin	ppm	ASTM D5185m	>4	<1		
Vanadium	ppm	ASTM D5185m		<1		
Cadmium	ppm	ASTM D5185m		<1		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	3		
Barium	ppm	ASTM D5185m	0	34		
Molybdenum	ppm	ASTM D5185m	60	49		
Manganese	ppm	ASTM D5185m	0	1		
Magnesium	ppm	ASTM D5185m	1010	746		
Calcium	ppm	ASTM D5185m	1070	846		
Phosphorus	ppm	ASTM D5185m	1150	858		
Zinc	ppm	ASTM D5185m	1270	1016		
Sulfur	ppm	ASTM D5185m	2060	2694		
CONTAMINAN	ITS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	11		
Sodium	ppm	ASTM D5185m		28		
Potassium	ppm	ASTM D5185m	>20	2		
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>6	0.3		
Nitration	Abs/cm	*ASTM D7624	>20	8.9		
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.8		
FLUID DEGRA	DATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.2		
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	7.8		



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VISUAL





		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		
	/24	Appearance	scalar	*Visual	NORML	NORML		
	Feb 14/24	Odor	scalar	*Visual	NORML	NORML		
		Emulsified Water	scalar	*Visual	>0.2	NEG		
		Free Water			≥0.∠	NEG		
			scalar	*Visual		NEG		
		FLUID PROPE	RTIES	method	limit/base	current	history1	history2
		Visc @ 100°C	cSt	ASTM D445	15.4	13.9		
		GRAPHS						
		Ferrous Alloys						
		20						
	V C/ V	iron chromium						
	L.4.1	15 nickel						
	Maa	10						
		5 -						

		04						
		Feb 14/24			Feb14/24			
		造			Feb			
		Non-ferrous Metals	S					
		10 copper						
		8 assessesses lead						
		essesses tin						
	-	6-						
	800							
		2-						
		24 10						
		Feb 14/24			Feb14/24			
					ц.			
		Viscosity @ 100°C				Base Number		
					10.	.0 Base		
					- 8.	0		
		17-			IB/HO			
	0.0	516 Base			Base Number (mg KOH/g)	.0		
	St (10	15			nber (
	10	3 14 -				.0		
		13 Abnormal			²⁸⁰ 2.	0		
		12						
		11						
		Feb 14/24			Feb14/24	Feb 14/24		
		Feb			Feb	Feb		
_ h =	tor	WeerCheek UCA 50	1 Madi				ironmental 440	Michigan 14
Labora Sample		WearCheck USA - 501 GFL0110117	Madiso Recei		7, NC 27513 6 Feb 2024	GFL ENVI	ironmental - 410	- Michigan W 0 Van Born
		06099866	Teste		7 Feb 2024		3900	Wayne,
		10898096	Diagn		' Feb 2024 ' Feb 2024 - V	Ves Davis		US 481
0.400 (7025			- agn				<u> </u>	
Unique N							Contact	: Belal Dohe
icate L2367 Test Pa	ickage :		ce at 1-8	00-237-1369	Э.			: Belal Dghe sh@gflenv.co

Submitted By: seel also GFL468 - Laura Wilson