

PROBLEM SUMMARY



VISCOSITY

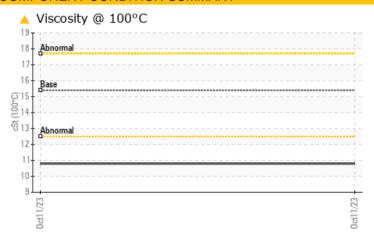




Machine Id 914057 Component **Diesel Engine**

PETRO CANADA DURON SHP 15W40 (25 GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status				ATTENTION	
Visc @ 100°C	cSt	ASTM D445	15.4	10.8	

Customer Id: GFL415 Sample No.: GFL0093224 Lab Number: 05978010 Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data: Sean Felton +1 919-379-4092 sfelton@wearcheckusa.com

To change component or sample information: Customer Service +1 1-800-237-1369 customerservice@wearcheck.com

RECOMMENDED ACTIONS						
Action	Status	Date	Done By	Description		
Change Fluid	,		?	Oil and filter change at the time of sampling has been noted.		
Change Filter			?	Oil and filter change at the time of sampling has been noted.		

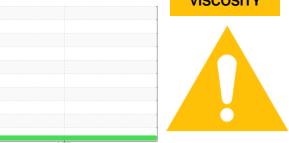
HISTORICAL DIAGNOSIS



OIL ANALYSIS REPORT

Sample Rating Trend

VISCOSITY





914057
Component
Diesel Engine
Fluid

PETRO CANADA DURON SHP 15W40 (25 GAL)

DIAGNOSIS

Recommendation

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

Metal levels are typical for a new component breaking in.

Contamination

There is no indication of any contamination in the oil

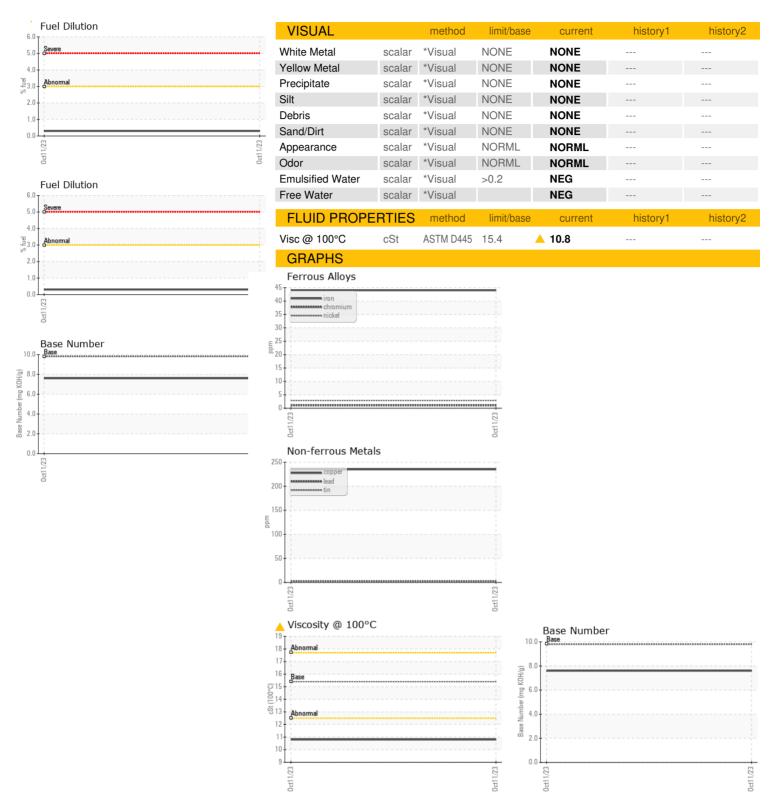
▲ Fluid Condition

The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

N SHP 15W40 (2	5 GAL)			Oct2023		
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0093224		
Sample Date		Client Info		11 Oct 2023		
Machine Age	hrs	Client Info		769		
Oil Age	hrs	Client Info		0		
Oil Changed	1110	Client Info		Changed		
Sample Status		Ollone lino		ATTENTION		
CONTAMINAT	ION	method	limit/base	current	history1	history2
Glycol	ION	WC Method	IIIIII/Dase	NEG		1113101 y 2
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>120	44		
Chromium	ppm	ASTM D5185m		1		
Nickel	ppm	ASTM D5185m	>5	3		
Titanium	ppm	ASTM D5185m		0		
Silver	ppm	ASTM D5185m	>2	<1		
Aluminum	ppm	ASTM D5185m	>20	4		
Lead	ppm	ASTM D5185m	>40	2		
Copper	ppm	ASTM D5185m		235		
Tin	ppm	ASTM D5185m	>15	3		
Vanadium	ppm	ASTM D5185m		<1		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	141		
Barium	ppm	ASTM D5185m	0	0		
Molybdenum	ppm	ASTM D5185m	60	109		
Manganese	ppm	ASTM D5185m	0	4		
Magnesium	nnm					
Calcium	ppm	ASTM D5185m	1010	756		
Odiolain	ppm	ASTM D5185m ASTM D5185m	1010 1070	756 1404		
Phosphorus						
	ppm	ASTM D5185m	1070	1404		
Phosphorus	ppm ppm	ASTM D5185m ASTM D5185m	1070 1150	1404 761		
Phosphorus Zinc	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	1070 1150 1270	1404 761 902		
Phosphorus Zinc Sulfur	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1070 1150 1270 2060 limit/base	1404 761 902 2272		
Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	1070 1150 1270 2060 limit/base	1404 761 902 2272 current		
Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	1070 1150 1270 2060 limit/base	1404 761 902 2272 current 64	 history1	history2
Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m	1070 1150 1270 2060 limit/base >25	1404 761 902 2272 current 64	 history1	history2
Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m	1070 1150 1270 2060 limit/base >25	1404 761 902 2272 current 64 2	 history1	 history2
Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D3524	1070 1150 1270 2060 limit/base >25 >20 >3.0	1404 761 902 2272 current 64 2 1	 history1 	 history2
Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED	ppm ppm ppm ppm ITS ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D3524	1070 1150 1270 2060 limit/base >25 >20 >3.0	1404 761 902 2272 current 64 2 1 0.3	history1 history1 history1	history2 history2
Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot %	ppm ppm ppm ppm ppm ITS ppm ppm ppm %	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D3524 method *ASTM D7844	1070 1150 1270 2060 limit/base >25 >20 >3.0 limit/base >4	1404 761 902 2272 current 64 2 1 0.3 current	history1 history1 history1	history2 history2
Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration	ppm ppm ppm ppm strs ppm ppm ppm ppm %	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D3524 method *ASTM D7844 *ASTM D7624	1070 1150 1270 2060 limit/base >25 >20 >3.0 limit/base >4 >20	1404 761 902 2272 current 64 2 1 0.3 current 0.6 9.1	history1 history1 history1	history2 history2 history2
Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm strs ppm ppm ppm ppm %	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D3524 method *ASTM D7844 *ASTM D7624 *ASTM D7415	1070 1150 1270 2060 Iimit/base >25 >20 >3.0 Iimit/base >4 >20 >30	1404 761 902 2272 current 64 2 1 0.3 current 0.6 9.1 22.7 current	history1 history1 history1	history2 history2 history2
Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation FLUID DEGRAE	ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D3524 method *ASTM D7844 *ASTM D7624 *ASTM D7415 method	1070 1150 1270 2060 limit/base >25 >20 >3.0 limit/base >4 >20 >30 limit/base >25	1404 761 902 2272 current 64 2 1 0.3 current 0.6 9.1 22.7	history1 history1 history1 history1 history1	history2 history2 history2



OIL ANALYSIS REPORT







Certificate L2367

Laboratory Sample No. Lab Number **Unique Number**

: GFL0093224

: 05978010 : 10695305

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 13 Oct 2023 Diagnosed : 17 Oct 2023 Diagnostician : Sean Felton

Test Package: FLEET (Additional Tests: FuelDilution, PercentFuel) 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.

GFL Environmental - 415 - Michigan East

6200 Elmridge Sterling Heights, MI US 48313 Contact: Frank Wolak fwolak@gflenv.com T: (586)825-9514

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