

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL





Machine Id 926056 Component Diesel Engine Fluid

PETRO CANADA DURON SHP 15W40 (--- 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

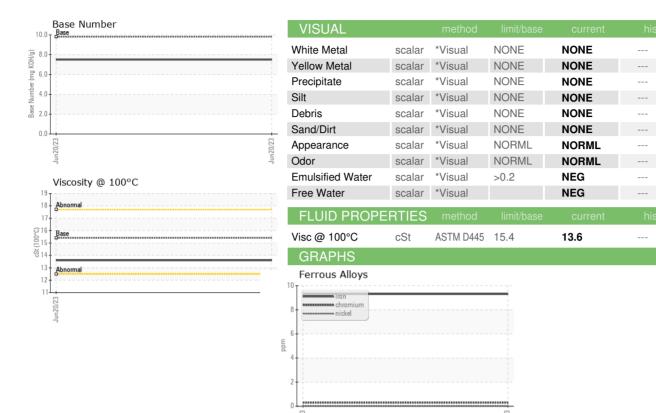
Fluid Condition

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

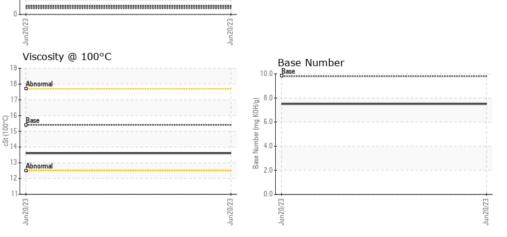
Company	N SHP 15W40 (GAL)			Jun2023		
Client Info 20 Jun 2023	SAMPLE INFOR	RMATION	method	limit/base	current	history 1	history 2
Machine Age hrs Client Info 678 Client Info 678 Client Info 678 Client Info Changed Changed Changed Changed Changed Changed Changed Changed Changed Changed	Sample Number		Client Info		GFL0085358		
Dil Age	Sample Date		Client Info		20 Jun 2023		
Contact	•	hrs	Client Info		8400		
Contact		hrs	Client Info		678		
CONTAMINATION method minit/base current history 1 history	· ·		Client Info		Changed		
WEAR METALS					_		
WEAR METALS	CONTAMINA	TION	method	limit/base	current	history 1	history 2
WEAR METALS	Fuel		WC Method	>3.0	<1.0		
Chromium				7 0.0			
Chromium	WEAR META	LS	method	limit/base	current	history 1	history 2
ASTM D5185m >20	ron	ppm	ASTM D5185m	>120	9		
Nickel	Chromium		ASTM D5185m	>20	<1		
Description							
Aluminum							
Aluminum							
Lead							
Copper							
Act							
Azanadium ppm ASTM D5185m 0 Cadmium ppm ASTM D5185m 0 ADDITIVES method limit/base current history 1 Boron ppm ASTM D5185m 0 1 Barium ppm ASTM D5185m 0 0 Molybdenum ppm ASTM D5185m 0 57 Manganese ppm ASTM D5185m 0 <1 Manganesium ppm ASTM D5185m 1010 905 Manganesium ppm ASTM D5185m 1070 1027 Phosphorus ppm ASTM D5185m 1150 937 Phosphorus ppm ASTM D5185m 1270 1181 Sulfur ppm ASTM D5185m 2060 2901	• •						
ADDITIVES				>15			
ADDITIVES							
Soron ppm ASTM D5185m 0 1		ppm					
Sarium	ADDITIVES		method	limit/base	current	history 1	history 2
Molybdenum ppm ASTM D5185m 60 57 Manganese ppm ASTM D5185m 0 <1	Boron	ppm		0			
Manganese ppm ASTM D5185m 0 <1 Magnesium ppm ASTM D5185m 1010 905 Calcium ppm ASTM D5185m 1070 1027 Phosphorus ppm ASTM D5185m 1150 937 Zinc ppm ASTM D5185m 1270 1181 Sulfur ppm ASTM D5185m 2060 2901 CONTAMINANTS method limit/base current history 1 history Solicon ppm ASTM D5185m >25 4 Solicon ppm ASTM D5185m 5 Potassium ppm ASTM D5185m >20 2 Potassium ppm ASTM D5185m 5 Potassium ppm ASTM D5185m >20 2 <td>Barium</td> <td>ppm</td> <td>ASTM D5185m</td> <td>0</td> <td>0</td> <td></td> <td></td>	Barium	ppm	ASTM D5185m	0	0		
Magnesium ppm ASTM D5185m 1010 905 Calcium ppm ASTM D5185m 1070 1027 Phosphorus ppm ASTM D5185m 1150 937 Zinc ppm ASTM D5185m 1270 1181 Sulfur ppm ASTM D5185m 2060 2901 CONTAMINANTS method limit/base current history 1 history Silicon ppm ASTM D5185m >25 4 Sodium ppm ASTM D5185m >20 2 Potassium ppm ASTM D5185m >20 2 INFRA-RED method limit/base current history 1 history Soot % % *ASTM D7844 >4 0.6 Sulfation Abs/.1mm *ASTM D7415 <td>Molybdenum</td> <td>ppm</td> <td>ASTM D5185m</td> <td>60</td> <td>57</td> <td></td> <td></td>	Molybdenum	ppm	ASTM D5185m	60	57		
Calcium ppm ASTM D5185m 1070 1027 Phosphorus ppm ASTM D5185m 1150 937 Zinc ppm ASTM D5185m 1270 1181 Sulfur ppm ASTM D5185m 2060 2901 CONTAMINANTS method limit/base current history 1 history Silicon ppm ASTM D5185m >25 4 Bodium ppm ASTM D5185m 5 Potassium ppm ASTM D5185m >20 2 Potassium ppm ASTM D5185m >20 2 INFRA-RED method limit/base current history 1 history Soot % % *ASTM D7844 >4 0.6 Nitration Abs/:mm *ASTM D7845 >30 22.9	Manganese	ppm	ASTM D5185m	0	<1		
Phosphorus ppm ASTM D5185m 1150 937 Zinc ppm ASTM D5185m 1270 1181 Sulfur ppm ASTM D5185m 2060 2901 CONTAMINANTS method limit/base current history 1 history Silicon ppm ASTM D5185m >25 4 Bodium ppm ASTM D5185m 5 Potassium ppm ASTM D5185m >20 2 Potassium ppm ASTM D5185m >20 2 INFRA-RED method limit/base current history 1 history Soot % % *ASTM D7844 >4 0.6 Soot % % *ASTM D7845 >30 22.9 Sulfation Abs/.1mm *ASTM D7415 >30 22.9	Magnesium	ppm	ASTM D5185m	1010	905		
Table Part Part	Calcium	ppm	ASTM D5185m	1070	1027		
Sulfur ppm ASTM D5185m 2060 2901 CONTAMINANTS method limit/base current history 1 history Silicon ppm ASTM D5185m >25 4 Sodium ppm ASTM D5185m 5 Potassium ppm ASTM D5185m >20 2 INFRA-RED method limit/base current history 1 history Soot % % *ASTM D7844 >4 0.6 Sulfation Abs/.1mm *ASTM D7624 >20 8.7 FLUID DEGRADATION method limit/base current history 1 history Oxidation Abs/.1mm *ASTM D7414 >25 20.2	Phosphorus	ppm	ASTM D5185m	1150	937		
CONTAMINANTS method limit/base current history 1 history 2 Silicon ppm ASTM D5185m >25 4 Sodium ppm ASTM D5185m 5 Potassium ppm ASTM D5185m >20 2 INFRA-RED method limit/base current history 1 history Soot % % *ASTM D7844 >4 0.6 Nitration Abs/cm *ASTM D7624 >20 8.7 Sulfation Abs/.1mm *ASTM D7415 >30 22.9 Dxidation Abs/.1mm *ASTM D7414 >25 20.2	Zinc	ppm	ASTM D5185m	1270	1181		
Solition ppm ASTM D5185m >25 4	Sulfur	ppm	ASTM D5185m	2060	2901		
Sodium ppm ASTM D5185m 5	CONTAMINAL	NTS	method	limit/base	current	history 1	history 2
Potassium ppm ASTM D5185m >20 2 INFRA-RED method limit/base current history 1 history Soot % % *ASTM D7844 >4 0.6 Nitration Abs/cm *ASTM D7624 >20 8.7 Sulfation Abs/.1mm *ASTM D7415 >30 22.9 FLUID DEGRADATION method limit/base current history 1 history Dxidation Abs/.1mm *ASTM D7414 >25 20.2	Silicon	ppm	ASTM D5185m	>25	4		
Potassium ppm ASTM D5185m >20 2 INFRA-RED method limit/base current history 1 history Soot % % *ASTM D7844 >4 0.6 Nitration Abs/cm *ASTM D7624 >20 8.7 Sulfation Abs/.1mm *ASTM D7415 >30 22.9 FLUID DEGRADATION method limit/base current history 1 history Oxidation Abs/.1mm *ASTM D7414 >25 20.2	Sodium	ppm	ASTM D5185m		5		
Soot %	Potassium	ppm	ASTM D5185m	>20	2		
Nitration Abs/cm *ASTM D7624 >20 8.7 Sulfation Abs/.1mm *ASTM D7415 >30 22.9 FLUID DEGRADATION method limit/base current history 1 history Oxidation Abs/.1mm *ASTM D7414 >25 20.2	INFRA-RED		method	limit/base	current	history 1	history 2
Nitration Abs/cm *ASTM D7624 >20 8.7 Sulfation Abs/.1mm *ASTM D7415 >30 22.9 FLUID DEGRADATION method limit/base current history 1 history Oxidation Abs/.1mm *ASTM D7414 >25 20.2	Soot %	%	*ASTM D7844	>4	0.6		
Sulfation Abs/.1mm *ASTM D7415 >30 22.9 FLUID DEGRADATION method limit/base current history 1 history Oxidation Abs/.1mm *ASTM D7414 >25 20.2		Abs/cm		>20			
Oxidation							
	FLUID DEGRA	DATION	method	limit/base	current	history 1	history 2
	Oxidation	Abs/.1mm	*ASTM D7414	>25	20.2		
	Base Number (BN)		ASTM D2896		7.5		



OIL ANALYSIS REPORT



Non-ferrous Metals





Certificate L2367

Laboratory Sample No. Lab Number Unique Number

: GFL0085358 : 05887309 : 10537792 Test Package : FLEET

To discuss this sample report, contact Customer Service at 1-800-237-1369.

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 29 Jun 2023 Diagnosed : 03 Jul 2023

: Wes Davis Diagnostician

GFL Environmental - 958A - Chillicothe Wigand 19908 N. State Rd 29

Chillicothe, IL US 61523 Contact: Bryan Link

blink@gflenv.com T:

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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