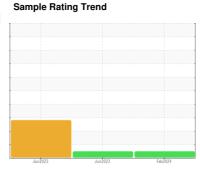


OIL ANALYSIS REPORT



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





DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

There is no indication of any contamination in the

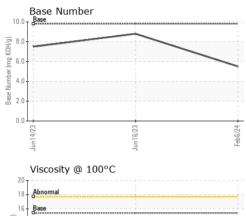
Fluid Condition

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

Sample Date Client Info 06 Feb 2024 16 Jun 2023 14 Jun 2023 Machine Age hrs Client Info 2226 5789 5775 Oil Age hrs Client Info 0 600 600 Oil Changed Client Info Not Changd Changed Changed Sample Status NORMAL NORMAL SEVERE CONTAMINATION method limit/base current history1 history2 Fuel WC Method >3.0 <1.0	<u> </u>		Jur	2023	Jun 2023 Feb 20	24	
Sample Date	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info 2226 5789 5775 Oil Age hrs Client Info 0 600 600 600 Oil Changed Client Info NoRMAL NORMAL NORMAL NORMAL SEVERE CONTAMINATION method Imilitrose current history1 history1 history2 Fuel WC Method >3.0 <1.0 <1.0 21.3 WEG NEG	Sample Number		Client Info		GFL0110062	GFL0069806	GFL0069831
Oil Age hrs Client Info Not Changed Changed	Sample Date		Client Info		06 Feb 2024	16 Jun 2023	14 Jun 2023
Oil Changed Sample Status Client Info Not Changd NORMAL Changed NORMAL Changed SEVERE CONTAMINATION method limit/base current history1 history2 Fuel WC Method >3.0 <1.0	Machine Age	hrs	Client Info		2226	5789	5775
Sample Status	Oil Age	hrs	Client Info		0	600	600
CONTAMINATION method limit/base current history1 history2 Fuel WC Method >3.0 <1.0	Oil Changed		Client Info		Not Changd	Changed	Changed
Fuel WC Method S3.0 <1.0 <1.0 ≥1.3	Sample Status				NORMAL	NORMAL	SEVERE
Water WC Method >0.2 NEG NEG NEG NEG Glycol WC Method Imitibase Current history1 history2 WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >20 <1 0 0 Chromium ppm ASTM D5185m >5 0 0 0 Nickel ppm ASTM D5185m >2 0 0 0 Silver ppm ASTM D5185m >2 0 0 0 Silver ppm ASTM D5185m >20 2 <1 2 Lead ppm ASTM D5185m >40 <1 0 0 Copper ppm ASTM D5185m >330 <1 0 0 Caddium ppm ASTM D5185m 0 0 0 0 ADDITIVES method limit/base current history1	CONTAMINAT	ION	method	limit/base	current	history1	history2
WEAR METALS	Fuel		WC Method	>3.0	<1.0	<1.0	21.3
WEAR METALS	Water		WC Method	>0.2	NEG	NEG	NEG
Iron	Glycol		WC Method		NEG	NEG	NEG
Chromium ppm ASTM D5185m >20 <1	WEAR METAL	S	method	limit/base	current	history1	history2
Nickel ppm ASTM D5185m >5 0 0 0 Titanium ppm ASTM D5185m >2 0 0 0 Silver ppm ASTM D5185m >2 0 0 0 Aluminum ppm ASTM D5185m >20 2 <1	Iron	ppm	ASTM D5185m	>120	15	0	7
Titanium	Chromium	ppm	ASTM D5185m	>20	<1	0	0
Silver ppm ASTM D5185m >2 0 0 0 Aluminum ppm ASTM D5185m >20 2 <1 2 Lead ppm ASTM D5185m >40 <1 0 0 Copper ppm ASTM D5185m >330 <1 0 0 Vanadium ppm ASTM D5185m 0 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 2 4 3 Barium ppm ASTM D5185m 0 0 0 0 0 Molybdenum ppm ASTM D5185m 0 2 4 3 Barium ppm ASTM D5185m 0 0 1 1 1 1 Mangaesium ppm ASTM D5185m 1010 </td <td>Nickel</td> <td>ppm</td> <td>ASTM D5185m</td> <td>>5</td> <th>0</th> <td>0</td> <td>0</td>	Nickel	ppm	ASTM D5185m	>5	0	0	0
Aluminum ppm ASTM D5185m >20 2 <1 2 Lead ppm ASTM D5185m >40 <1	Titanium	ppm	ASTM D5185m	>2	0	0	0
Lead ppm ASTM D5185m >40 <1 0 0 Copper ppm ASTM D5185m >330 <1 0 0 Tin ppm ASTM D5185m >15 <1 <1 <1 <1 Vanadium ppm ASTM D5185m 0 0 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 2 4 3 Barium ppm ASTM D5185m 0 0 0 0 0 Molybdenum ppm ASTM D5185m 0 2 4 3 Barium ppm ASTM D5185m 0 <1 <1 <1 <1 Magnesium ppm ASTM D5185m 0 <1 <1 <1 <1 <1 <1 <t< td=""><td>Silver</td><td>ppm</td><td>ASTM D5185m</td><td>>2</td><th>0</th><td>0</td><td>0</td></t<>	Silver	ppm	ASTM D5185m	>2	0	0	0
Copper ppm ASTM D5185m >330 <1 0 0 Tin ppm ASTM D5185m >15 <1	Aluminum	ppm	ASTM D5185m	>20	2	<1	2
Tin ppm ASTM D5185m >15 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1	Lead	ppm	ASTM D5185m	>40	<1	0	0
Vanadium ppm ASTM D5185m 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 2 4 3 Barium ppm ASTM D5185m 0 0 0 0 0 Molybdenum ppm ASTM D5185m 60 59 57 46 Manganese ppm ASTM D5185m 0 <1 <1 <1 Magnesium ppm ASTM D5185m 1010 928 964 774 Calcium ppm ASTM D5185m 1070 1041 1031 838 Phosphorus ppm ASTM D5185m 1270 1239 1290 1028 Sulfur ppm ASTM D5185m 2060 2538 3224 2384 CONTAMINANTS method limit/base current hi	Copper	ppm	ASTM D5185m	>330	<1	0	0
Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 2 4 3 Barium ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 0 <1	Tin	ppm	ASTM D5185m	>15	<1	<1	<1
ADDITIVES	Vanadium	ppm	ASTM D5185m		0	0	0
Boron	Cadmium	ppm	ASTM D5185m		0	0	0
Barium ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 60 59 57 46 Manganese ppm ASTM D5185m 0 <1 <1 <1 Magnesium ppm ASTM D5185m 1010 928 964 774 Calcium ppm ASTM D5185m 1070 1041 1031 838 Phosphorus ppm ASTM D5185m 1150 1025 1082 867 Zinc ppm ASTM D5185m 1270 1239 1290 1028 Sulfur ppm ASTM D5185m 2060 2538 3224 2384 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 4 2 5 Sodium ppm ASTM D5185m >20 0 <1 <1 INFRA-RED method limit/base	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 60 59 57 46 Manganese ppm ASTM D5185m 0 <1 <1 <1 Magnesium ppm ASTM D5185m 1010 928 964 774 Calcium ppm ASTM D5185m 1070 1041 1031 838 Phosphorus ppm ASTM D5185m 1150 1025 1082 867 Zinc ppm ASTM D5185m 1270 1239 1290 1028 Sulfur ppm ASTM D5185m 2060 2538 3224 2384 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 4 2 5 Sodium ppm ASTM D5185m >20 0 <1 <1 INFRA-RED method limit/base current history1 history2 Soot % *ASTM D7844 >4	Boron	ppm	ASTM D5185m	0	2	4	3
Manganese ppm ASTM D5185m 0 <1 <1 <1 Magnesium ppm ASTM D5185m 1010 928 964 774 Calcium ppm ASTM D5185m 1070 1041 1031 838 Phosphorus ppm ASTM D5185m 1150 1025 1082 867 Zinc ppm ASTM D5185m 1270 1239 1290 1028 Sulfur ppm ASTM D5185m 2060 2538 3224 2384 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 4 2 5 Sodium ppm ASTM D5185m >20 0 <1 <1 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >4 0.7 0.1 0.4 Nitration Abs/cm *ASTM D7815	Barium	ppm	ASTM D5185m	0	0	0	0
Magnesium ppm ASTM D5185m 1010 928 964 774 Calcium ppm ASTM D5185m 1070 1041 1031 838 Phosphorus ppm ASTM D5185m 1150 1025 1082 867 Zinc ppm ASTM D5185m 1270 1239 1290 1028 Sulfur ppm ASTM D5185m 2060 2538 3224 2384 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 4 2 5 Sodium ppm ASTM D5185m >20 0 <1	Molybdenum	ppm	ASTM D5185m	60	59	57	46
Calcium ppm ASTM D5185m 1070 1041 1031 838 Phosphorus ppm ASTM D5185m 1150 1025 1082 867 Zinc ppm ASTM D5185m 1270 1239 1290 1028 Sulfur ppm ASTM D5185m 2060 2538 3224 2384 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 4 2 5 Sodium ppm ASTM D5185m >20 0 <1	Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Phosphorus ppm ASTM D5185m 1150 1025 1082 867 Zinc ppm ASTM D5185m 1270 1239 1290 1028 Sulfur ppm ASTM D5185m 2060 2538 3224 2384 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 4 2 5 Sodium ppm ASTM D5185m >20 0 <1	Magnesium	ppm	ASTM D5185m	1010	928	964	774
Zinc ppm ASTM D5185m 1270 1239 1290 1028 Sulfur ppm ASTM D5185m 2060 2538 3224 2384 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 4 2 5 Sodium ppm ASTM D5185m 4 0 3 Potassium ppm ASTM D5185m >20 0 <1	Calcium	ppm	ASTM D5185m	1070	1041	1031	838
Sulfur ppm ASTM D5185m 2060 2538 3224 2384 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 4 2 5 Sodium ppm ASTM D5185m 4 0 3 Potassium ppm ASTM D5185m >20 0 <1	Phosphorus	ppm	ASTM D5185m	1150	1025	1082	867
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 4 2 5 Sodium ppm ASTM D5185m 4 0 3 Potassium ppm ASTM D5185m >20 0 <1	Zinc	ppm	ASTM D5185m	1270	1239	1290	1028
Silicon ppm ASTM D5185m >25 4 2 5 Sodium ppm ASTM D5185m 4 0 3 Potassium ppm ASTM D5185m >20 0 <1 <1 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >4 0.7 0.1 0.4 Nitration Abs/cm *ASTM D7624 >20 9.5 4.5 7.5 Sulfation Abs/.1mm *ASTM D7415 >30 22.0 16.7 17.1 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 18.6 12.7 12.4	Sulfur	ppm	ASTM D5185m	2060	2538	3224	2384
Sodium ppm ASTM D5185m 4 0 3 Potassium ppm ASTM D5185m >20 0 <1 <1 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >4 0.7 0.1 0.4 Nitration Abs/cm *ASTM D7624 >20 9.5 4.5 7.5 Sulfation Abs/.1mm *ASTM D7415 >30 22.0 16.7 17.1 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 18.6 12.7 12.4	CONTAMINAN	TS	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 0 <1 <1 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >4 0.7 0.1 0.4 Nitration Abs/cm *ASTM D7624 >20 9.5 4.5 7.5 Sulfation Abs/.1mm *ASTM D7415 >30 22.0 16.7 17.1 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 18.6 12.7 12.4	Silicon	ppm	ASTM D5185m	>25	4	2	5
INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >4 0.7 0.1 0.4 Nitration Abs/cm *ASTM D7624 >20 9.5 4.5 7.5 Sulfation Abs/.1mm *ASTM D7415 >30 22.0 16.7 17.1 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 18.6 12.7 12.4	Sodium	ppm	ASTM D5185m		4	0	3
Soot % % *ASTM D7844 >4 0.7 0.1 0.4 Nitration Abs/cm *ASTM D7624 >20 9.5 4.5 7.5 Sulfation Abs/.1mm *ASTM D7415 >30 22.0 16.7 17.1 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 18.6 12.7 12.4	Potassium	ppm	ASTM D5185m	>20	0	<1	<1
Nitration Abs/cm *ASTM D7624 >20 9.5 4.5 7.5 Sulfation Abs/.1mm *ASTM D7415 >30 22.0 16.7 17.1 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 18.6 12.7 12.4	INFRA-RED		method	limit/base	current	history1	history2
Sulfation Abs/.1mm *ASTM D7415 >30 22.0 16.7 17.1 FLUID DEGRADATION method limit/base current bistory1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 18.6 12.7 12.4	Soot %	%	*ASTM D7844	>4	0.7	0.1	0.4
FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 18.6 12.7 12.4	Nitration	Abs/cm	*ASTM D7624	>20	9.5	4.5	7.5
Oxidation Abs/.1mm *ASTM D7414 >25 18.6 12.7 12.4	Sulfation	Abs/.1mm	*ASTM D7415	>30	22.0	16.7	17.1
	FLUID DEGRAD	DATION	method	limit/base	current	history1	history2
Base Number (BN) mg KOH/g ASTM D2896 9.8 5.5 8.8 7.5	Oxidation	Abs/.1mm	*ASTM D7414	>25	18.6	12.7	12.4
	Base Number (BN)	mg KOH/g	ASTM D2896	9.8	5.5	8.8	7.5



OIL ANALYSIS REPORT

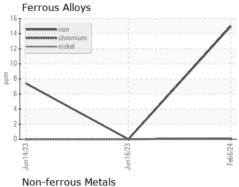


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPE	RTIES	method	limit/base	current	history1	history2

13.4

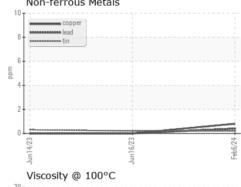
20 T		
18 Abnormal		
16 - Base		
Abnormal		
Abnormal		
ži 12		
10-		
8		
6 1	22	5
14/2	un16/23	5 3
Ē	S	3

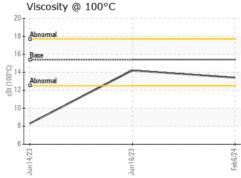
Visc @ 100°C **GRAPHS**

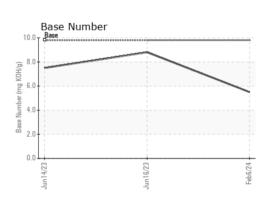


cSt

ASTM D445 15.4







14.2

8.3



Laboratory Sample No.

Lab Number : 06085766 Unique Number : 10873211

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : GFL0110062 Received : 12 Feb 2024

Tested : 13 Feb 2024 Diagnosed : 13 Feb 2024 - Wes Davis

GFL Environmental - 468 - Dearborn

3051 Schaefer Rd Dearborn, MI US 48126 Contact:

Test Package : FLEET Certificate L2367 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.

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

T:

F: