

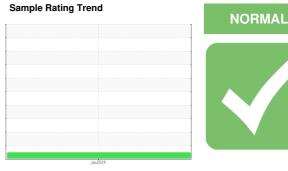
OIL ANALYSIS REPORT

DURON SHP 15W40

Component

New (Unused) Oil

PETRO CANADA DURON SHP 15W40 (--- G



DIAGNOSIS

Recommendation

This is the baseline readout on this new (unused) oil. The fluid is suitable for service. Resample at the next service interval to monitor.

{not applicable}

Contamination

There is no indication of any contamination in the new (unused) oil.

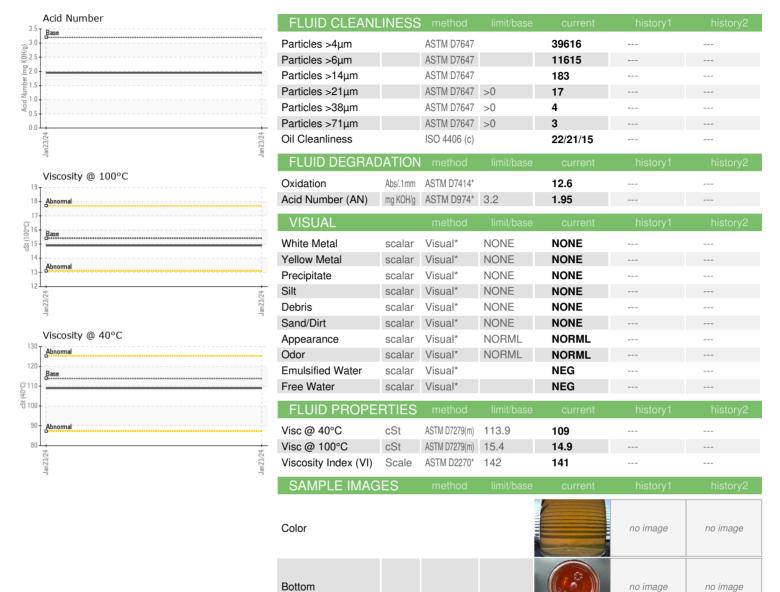
Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for service.

Sample Date Client Info 23 Jan 2024	iAL)				Jan 2024		
Client Info	SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info 0	Sample Number		Client Info		PC0080885		
Oil Changed	Sample Date		Client Info		23 Jan 2024		
Oil Changed Sample Status Client Info N/A CONTAMINATION method limit/base current history1 history2 Water WC Method NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185(m) 0 Nickel ppm ASTM D5185(m) 0 Nickel ppm ASTM D5185(m) 0 Nickel ppm ASTM D5185(m) 0 Silver ppm ASTM D5185(m) 0 Aluminum ppm ASTM D5185(m) 0 Copper ppm ASTM D5185(m) 0 Copper ppm ASTM D5185(m) 0 Vanadium ppm ASTM D5185(m) 0 </td <td>Machine Age</td> <td>hrs</td> <td>Client Info</td> <td></td> <td>0</td> <td></td> <td></td>	Machine Age	hrs	Client Info		0		
Oil Changed Sample Status Client Info N/A CONTAMINATION method limit/base current history1 history2 Water WC Method NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185(m) 0 Nickel ppm ASTM D5185(m) 0 Nickel ppm ASTM D5185(m) 0 Nickel ppm ASTM D5185(m) 0 Silver ppm ASTM D5185(m) 0 Aluminum ppm ASTM D5185(m) 0 Copper ppm ASTM D5185(m) 0 Copper ppm ASTM D5185(m) 0 Vanadium ppm ASTM D5185(m) 0 </td <td>Oil Age</td> <td>hrs</td> <td>Client Info</td> <td></td> <td>0</td> <td></td> <td></td>	Oil Age	hrs	Client Info		0		
CONTAMINATION method limit/base current history1 history2 Water WC Method NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185(m) <1 Ohromium ppm ASTM D5185(m) 0 Nickel ppm ASTM D5185(m) 0 Nickel ppm ASTM D5185(m) 0 Nitranium ppm ASTM D5185(m) 0 Aluminum ppm ASTM D5185(m) 0 Cabe ppm ASTM D5185(m) 0 Copper ppm ASTM D5185(m) 0 Vanadium ppm ASTM D5185(m) 0 Vanadium ppm ASTM D5185(m) 0 <td>Oil Changed</td> <td></td> <td>Client Info</td> <td></td> <td>N/A</td> <td></td> <td></td>	Oil Changed		Client Info		N/A		
Water WC Method NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185(m) <1 Chromium ppm ASTM D5185(m) 0 Nickel ppm ASTM D5185(m) 0 Titanium ppm ASTM D5185(m) 0 Aluminum ppm ASTM D5185(m) 0 Lead ppm ASTM D5185(m) 0 Aluminum ppm ASTM D5185(m) 0 Lead ppm ASTM D5185(m) 0 Copper ppm ASTM D5185(m) 0 Vanadium ppm ASTM D5185(m) 0 Vanadium ppm ASTM D5185(m) 0	Sample Status				NORMAL		
WEAR METALS	CONTAMINAT	ION	method	limit/base	current	history1	history2
Chromium	Water		WC Method		NEG		
Chromium	WEAR METAL	S	method	limit/base	current	history1	history2
Chromium	Iron	ppm	ASTM D5185(m)		<1		
Nickel	Chromium		. ,		0		
Description	Nickel				<1		
Silver	Titanium		. ,		0		
Aluminum	Silver		ASTM D5185(m)		0		
Lead	Aluminum		. ,				
Copper ppm ASTM D5185(m) 0 Tin ppm ASTM D5185(m) 0 Antimony ppm ASTM D5185(m) 0 Vanadium ppm ASTM D5185(m) 0 Beryllium ppm ASTM D5185(m) 0 Cadmium ppm ASTM D5185(m) 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185(m) 0 1 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185(m) 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185(m) 0 0 Molydenum	Lead		, ,		0		
Tin			. ,				
Antimony	• •						
Vanadium ppm ASTM D5185(m) 0 Beryllium ppm ASTM D5185(m) 0 Cadmium ppm ASTM D5185(m) 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185(m) 0 1 Barium ppm ASTM D5185(m) 0 0 Molybdenum ppm ASTM D5185(m) 0 0 Manganese ppm ASTM D5185(m) 0 0 Magnesium ppm ASTM D5185(m) 1010 954 Calcium ppm ASTM D5185(m) 1070 1040 Phosphorus ppm ASTM D5185(m) 1270 1144 Sulfur ppm ASTM D5185(m) 2060 2774 <t< td=""><td></td><td></td><td>. ,</td><td></td><td></td><td></td><td></td></t<>			. ,				
Description	•		, ,				
ADDITIVES	Bervllium		, ,				
Boron	Cadmium						
Barium	ADDITIVES		method	limit/base	current	history1	history2
Barium	Boron	ppm	ASTM D5185(m)	0	1		
Molybdenum ppm ASTM D5185(m) 60 57 Manganese ppm ASTM D5185(m) 0 0 Magnesium ppm ASTM D5185(m) 1010 954 Calcium ppm ASTM D5185(m) 1070 1040 Phosphorus ppm ASTM D5185(m) 1150 1008 Zinc ppm ASTM D5185(m) 1270 1144 Sulfur ppm ASTM D5185(m) 2060 2774 Lithium ppm ASTM D5185(m) <1 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) <1 Sodium ppm ASTM D5185(m) >20 <1 INFRA-RED method limit/base cur	Barium		. ,	0	0		
Manganese ppm ASTM D5185(m) 0 0 Magnesium ppm ASTM D5185(m) 1010 954 Calcium ppm ASTM D5185(m) 1070 1040 Phosphorus ppm ASTM D5185(m) 1150 1008 Zinc ppm ASTM D5185(m) 1270 1144 Sulfur ppm ASTM D5185(m) 2060 2774 Lithium ppm ASTM D5185(m) <1	Molvbdenum		(/		57		
Magnesium ppm ASTM D5185(m) 1 0 1 0 954 Calcium ppm ASTM D5185(m) 1 0 70 1040 Phosphorus ppm ASTM D5185(m) 1150 1008 Zinc ppm ASTM D5185(m) 1270 1144 Sulfur ppm ASTM D5185(m) 2060 2774 Lithium ppm ASTM D5185(m) <1	•		. ,	0	0		
Calcium ppm ASTM D5185(m) 1070 1040 Phosphorus ppm ASTM D5185(m) 1150 1008 Zinc ppm ASTM D5185(m) 1270 1144 Sulfur ppm ASTM D5185(m) 2060 2774 Lithium ppm ASTM D5185(m) <1	•			1010			
Phosphorus ppm ASTM D5185(m) 1 150 1008 Zinc ppm ASTM D5185(m) 1270 1144 Sulfur ppm ASTM D5185(m) 2060 2774 Lithium ppm ASTM D5185(m) <1 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) 4 Sodium ppm ASTM D5185(m) <1 Potassium ppm ASTM D5185(m) >20 <1 INFRA-RED method limit/base current history1 history2 Soot % % ASTM D7844* 0 Nitration Abs/cm ASTM D7624* 4.1			. ,				
Zinc ppm ASTM D5185(m) 1270 1144 Sulfur ppm ASTM D5185(m) 2060 2774 Sulfur ppm ASTM D5185(m) <1 Sulfur Ppm ASTM D5185(m) <1 Sulfur Sulfur Ppm ASTM D5185(m)							
Sulfur ppm ASTM D5185(m) 2060 2774 Lithium ppm ASTM D5185(m) <1 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) 4 Sodium ppm ASTM D5185(m) <1 Potassium ppm ASTM D5185(m) >20 <1 INFRA-RED method limit/base current history1 history2 Soot % % ASTM D7844* 0 Nitration Abs/cm ASTM D7624* 4.1			. ,				
Lithium ppm ASTM D5185(m) <1 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) 4 Sodium ppm ASTM D5185(m) <1	Sulfur						
Silicon ppm ASTM D5185(m) 4 Sodium ppm ASTM D5185(m) <1 Potassium ppm ASTM D5185(m) >20 <1 INFRA-RED method limit/base current history1 history2 Soot % % ASTM D7844* 0 Nitration Abs/cm ASTM D7624* 4.1	Lithium		. ,				
Sodium ppm ASTM D5185(m) <1	CONTAMINAN	TS _	method	limit/base	current	history1	history2
Sodium ppm ASTM D5185(m) <1 Potassium ppm ASTM D5185(m) >20 <1 INFRA-RED method limit/base current history1 history2 Soot % % ASTM D7844* 0 Nitration Abs/cm ASTM D7624* 4.1	Silicon	ppm	ASTM D5185(m)		4		
Potassium ppm ASTM D5185(m) >20 <1 INFRA-RED method limit/base current history1 history2 Soot % % ASTM D7844* 0 Nitration Abs/cm ASTM D7624* 4.1	Sodium		. ,				
Soot % % ASTM D7844* 0 Nitration Abs/cm ASTM D7624* 4.1	Potassium		, ,	>20			
Nitration Abs/cm ASTM D7624* 4.1	INFRA-RED		method	limit/base	current	history1	history2
Nitration Abs/cm ASTM D7624* 4.1	Soot %	%	ASTM D7844*		0		
	Nitration	Abs/cm	ASTM D7624*				
	Sulfation				17.4		



OIL ANALYSIS REPORT





CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No. Lab Number

Unique Number

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 : PC0080885 : 02611491 : 5720586

Recieved Diagnosed

: 29 Jan 2024 Diagnostician : Bill Quesnel

: 26 Jan 2024

Test Package : IND 2 (Additional Tests: FT-IR, ICP-NewOil, KV100, PrtCount, TAN Man, VI)

To discuss this sample report, contact Customer Service at 1-800-268-2131. Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. Validity of results and interpretation are based on the sample and information as supplied.

PETRONOR INC 2920 RTE 111 EST

AMOS, QC **CA J9T 3A1** Contact: Gaston

entretien@petronor.ca T: (819)732-5334

F:

Contact/Location: Gaston ? - PROAMO