

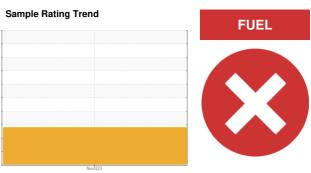
## **OIL ANALYSIS REPORT**

# SHARP BUS LINES Machine Id INTERNATIONAL 1334

Component

**Diesel Engine** 

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



### DIAGNOSIS

#### Recommendation

We advise that you check the fuel injection system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

#### Wear

All component wear rates are normal.

#### Contamination

There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

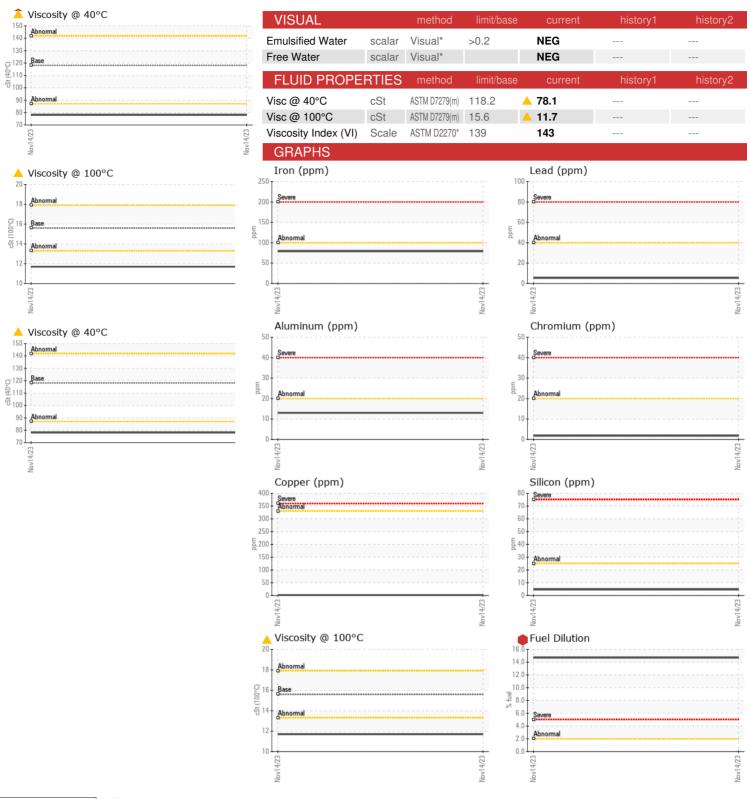
#### Fluid Condition

Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

AL)						
AL)				Nov2023		
SAMPLE INFOR	RMATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PC0081501		
Sample Date		Client Info		14 Nov 2023		
Machine Age	kms	Client Info		220647		
Oil Age	kms	Client Info		3000		
Oil Changed		Client Info		Changed		
Sample Status				SEVERE		
CONTAMINAT	TION	method	limit/base	current	history1	history2
Glycol		WC Method		NEG		
WEAR METAL	_S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	79		
Chromium	ppm	ASTM D5185(m)	>20	2		
Nickel	ppm	ASTM D5185(m)	>4	<1		
Titanium	ppm	ASTM D5185(m)		0		
Silver	ppm	ASTM D5185(m)	>3	<1		
Aluminum	ppm	ASTM D5185(m)	>20	13		
Lead	ppm	ASTM D5185(m)	>40	5		
Copper	ppm	ASTM D5185(m)	>330	2		
Tin	ppm	ASTM D5185(m)	>15	1		
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
ADDITIVES Boron	ppm	method ASTM D5185(m)	limit/base	current 2	history1	history2
	ppm					
Boron	ppm	ASTM D5185(m)	0	2		
Boron Barium	ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0	2 0		
Boron Barium Molybdenum	ppm ppm	ASTM D5185(m) ASTM D5185(m)	0 0 60	2 0 52		
Boron Barium Molybdenum Manganese	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 60 0 1010	2 0 52 <1		
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 60 0	2 0 52 <1 791		
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm	ASTM D5185(m)	0 0 60 0 1010 1070	2 0 52 <1 791 896		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	0 0 60 0 1010 1070 1150	2 0 52 <1 791 896 847		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	0 0 60 0 1010 1070 1150 1270	2 0 52 <1 791 896 847 1019		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	0 0 60 0 1010 1070 1150 1270	2 0 52 <1 791 896 847 1019 1995		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	0 0 60 0 1010 1070 1150 1270 2060	2 0 52 <1 791 896 847 1019 1995 <1		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon	ppm	ASTM D5185(m)	0 0 60 0 1010 1070 1150 1270 2060	2 0 52 <1 791 896 847 1019 1995 <1 current		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium	ppm	ASTM D5185(m)	0 0 60 0 1010 1070 1150 1270 2060	2 0 52 <1 791 896 847 1019 1995 <1 current 5		history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon	ppm	ASTM D5185(m)	0 0 60 0 1010 1070 1150 1270 2060	2 0 52 <1 791 896 847 1019 1995 <1 current 5 2		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium Fuel	ppm	ASTM D5185(m)	0 0 60 0 1010 1070 1150 1270 2060 limit/base >25 >20 >2.0	2 0 52 <1 791 896 847 1019 1995 <1 current 5 2 0		history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED	ppm	ASTM D5185(m)	0 0 60 0 1010 1070 1150 1270 2060 limit/base >25 >20 >2.0	2 0 52 <1 791 896 847 1019 1995 <1 current 5 2 0		history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot %	ppm	ASTM D5185(m) ASTM D7593*  method  ASTM D7844*	0 0 60 0 1010 1070 1150 1270 2060 limit/base >25 >20 >2.0 limit/base	2 0 52 <1 791 896 847 1019 1995 <1 current 5 2 0 14.7		history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration	ppm	ASTM D5185(m) ASTM D7593*  method  ASTM D75944* ASTM D7624*	0 0 60 0 1010 1070 1150 1270 2060 limit/base >25 >20 >2.0 limit/base	2 0 52 <1 791 896 847 1019 1995 <1 current 5 2 0 14.7 current	history1 history1	history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation	ppm	ASTM D5185(m) ASTM D7593*  method  ASTM D7593*	0 0 60 0 1010 1070 1150 1270 2060 limit/base >25 >20 >2.0 limit/base >3 >20 >30	2 0 52 <1 791 896 847 1019 1995 <1 current 5 2 0 14.7		history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration	ppm	ASTM D5185(m) ASTM D7593*  method  ASTM D7593*	0 0 60 0 1010 1070 1150 1270 2060 limit/base >25 >20 >2.0 limit/base	2 0 52 <1 791 896 847 1019 1995 <1 current 5 2 0 14.7 current	history1 history1	history2 history2



## **OIL ANALYSIS REPORT**





CALA ISO 17025:2017 Accredited

Laboratory Sample No. Lab Number Unique Number

: PC0081501 : 02597011

: 5682091

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Received : 17 Nov 2023 Diagnosed

: 20 Nov 2023 Diagnostician : Kevin Marson

Test Package : MOB 1 (Additional Tests: FuelDilution, KV40, PercentFuel, 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.

**ICSB** - Brantford 567 Oak Park Rd. Brantford, ON CA N3T 5L8 Contact: Doug Hall Djhall@sharpbus.com T: (519)751-3434