

# **OIL ANALYSIS REPORT**

#### Sample Rating Trend

NORMAL

#### Area (89535X) Walgreens Machine Id [Walgreens] 136A67101 Component

Diesel Engine

PETRO CANADA DURON SHP 10W30 (11 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

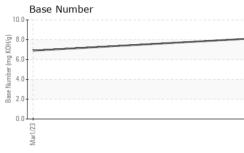
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

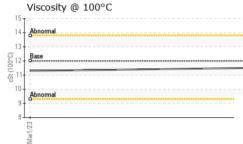
SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0091525	PCA0091466	
Sample Date		Client Info		20 Jun 2023	01 Mar 2023	
Machine Age	mls	Client Info		688704	659152	
Oil Age	mls	Client Info		29552	50000	
Oil Changed		Client Info		Oil Added	Changed	
Sample Status				NORMAL	NORMAL	
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	
Glycol		WC Method		NEG	NEG	
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>110	20	39	
Chromium	ppm	ASTM D5185m	>4	1	2	
Nickel	ppm	ASTM D5185m	>2	2	<1	
Titanium	ppm	ASTM D5185m		0	<1	
Silver	ppm	ASTM D5185m	>2	0	0	
Aluminum	ppm	ASTM D5185m	>25	4	6	
Lead	ppm	ASTM D5185m	>45	0	<1	
Copper	ppm	ASTM D5185m	>85	4	3	
Tin	ppm	ASTM D5185m	>4	۔ <1	<1	
Vanadium	ppm	ASTM D5185m	~7	0	<1	
Cadmium	ppm	ASTM D5185m		0	0	
	ррпп	AOTIN DOTOSIII		Ū	0	
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	0	0	
Boron Barium	ppm	ASTM D5185m ASTM D5185m	2 0	0 0	0	
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50	0 0 63	0 0 59	
Boron Barium Molybdenum Manganese	ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0	0 0 63 <1	0 0 59 1	
Boron Barium Molybdenum Manganese Magnesium	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950	0 0 63 <1 900	0 0 59 1 892	
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050	0 0 63 <1 900 1096	0 0 59 1	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 950 1050 995	0 0 63 <1 900 1096 1028	0 0 59 1 892 1137 913	
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050	0 0 63 <1 900 1096	0 0 59 1 892 1137	  
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 950 1050 995	0 0 63 <1 900 1096 1028	0 0 59 1 892 1137 913	  
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180	0 0 63 <1 900 1096 1028 1219	0 0 59 1 892 1137 913 1205	   
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600	0 0 63 <1 900 1096 1028 1219 3242	0 0 59 1 892 1137 913 1205 2899	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600	0 0 63 <1 900 1096 1028 1219 3242 current	0 0 59 1 892 1137 913 1205 2899 history1	     history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600 <b>limit/base</b> >30	0 0 63 <1 900 1096 1028 1219 3242 current 7	0 0 59 1 892 1137 913 1205 2899 history1 16	     history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600 <b>limit/base</b> >30	0 0 63 <1 900 1096 1028 1219 3242 current 7 0	0 0 59 1 892 1137 913 1205 2899 history1 16 2	     history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600 <b>limit/base</b> >30	0 0 63 <1 900 1096 1028 1219 3242 current 7 0 2	0 0 59 1 892 1137 913 1205 2899 history1 16 2 2 2	    history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 <b>imit/base</b> >30 -20 <b>imit/base</b>	0 0 63 <1 900 1096 1028 1219 3242 current 7 0 2 2	0 0 59 1 892 1137 913 1205 2899 history1 16 2 2 2 history1	     history2   history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 <b>limit/base</b> >30 >20 <b>limit/base</b>	0 0 63 <1 900 1096 1028 1219 3242 current 7 0 2 2 current	0 0 59 1 892 1137 913 1205 2899 history1 16 2 2 2 history1 0.9	     history2  history2  history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 <i>limit/base</i> >30 20 <i>limit/base</i> >3 >20	0 0 63 <1 900 1096 1028 1219 3242 <u>current</u> 7 0 2 <u>current</u> 0.5 8.8	0 0 59 1 892 1137 913 1205 2899 history1 16 2 2 2 history1 0.9 10.7	     history2  history2  history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 <b>imit/base</b> >30 >20 >30 >20 >30 >30 >30	0 0 63 <1 900 1096 1028 1219 3242 <u>current</u> 7 0 2 2 <u>current</u> 0.5 8.8 19.9	0 0 59 1 892 1137 913 1205 2899 history1 16 2 2 2 <b>history1</b> 0.9 10.7 21.8	     history2  history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRAE	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D7844 *ASTM D7844 *ASTM D7844	2 0 50 0 950 1050 995 1180 2600 <b>imit/base</b> >30 >20 >30 >20 >30 >30 >30	0 0 63 <1 900 1096 1028 1219 3242 <i>current</i> 7 0 2 <i>current</i> 0.5 8.8 19.9 <i>current</i>	0 0 59 1 892 1137 913 1205 2899 history1 16 2 2 2 history1 0.9 10.7 21.8 history1	    history2  history2  history2  history2

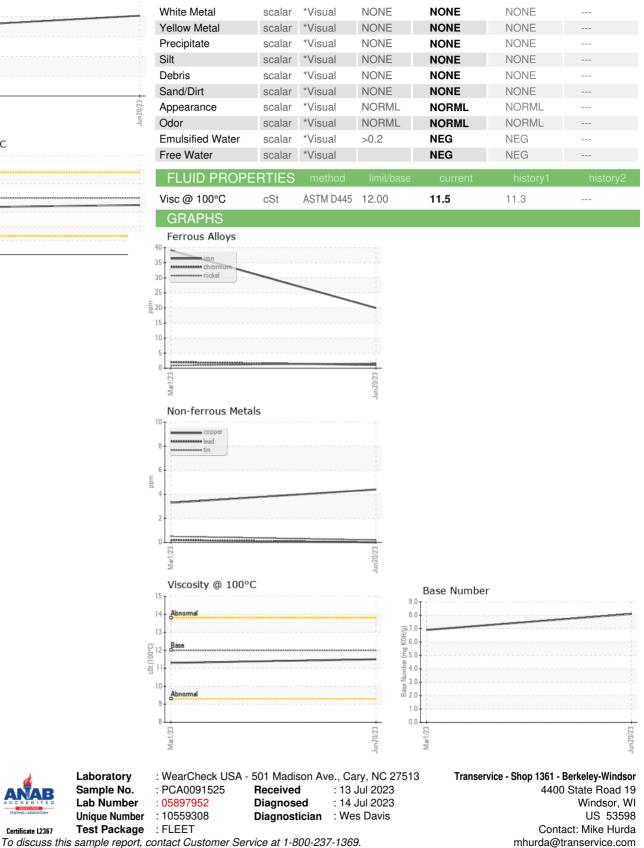


# **OIL ANALYSIS REPORT**

VISUAL







Report Id: TSV1361 [WUSCAR] 05897952 (Generated: 07/14/2023 11:34:49) Rev: 1

\* - 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)

Certificate L2367

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Submitted By: Mike Hurda

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T: (608)846-2726

F: (608)846-0389