

## **OIL ANALYSIS REPORT**

Sample Rating Trend

NORMAL

## Area Walgreens - Tractor [Walgreens - Tractor] 136A63366 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

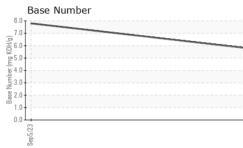
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

<b>ARE</b> )			Sep2023	Dec2023		
SAMPLE INFORM	<b>/IATION</b>	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0105464	PCA0105402	
Sample Date		Client Info		14 Dec 2023	05 Sep 2023	
Machine Age	mls	Client Info		84594	63221	
Oil Age	mls	Client Info		50000	18000	
Oil Changed		Client Info		Changed	Not Changd	
Sample Status				NORMAL	NORMAL	
CONTAMINATI	ON	method	limit/base	current	history1	history2
Fuel		WC Method	>2.0	<1.0	<1.0	
Water		WC Method	>0.2	NEG	NEG	
Glycol		WC Method		NEG	NEG	
WEAR METALS	5	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	31	21	
Chromium	ppm	ASTM D5185m	>20	3	2	
Nickel	ppm	ASTM D5185m	>4	4	4	
Titanium	ppm	ASTM D5185m		0	0	
Silver	ppm	ASTM D5185m	>3	0	<1	
Aluminum	ppm	ASTM D5185m	>20	16	13	
Lead	ppm	ASTM D5185m	>40	3	1	
Copper	ppm		>330	7	7	
Tin	ppm	ASTM D5185m	>15	3	2	
Vanadium	ppm	ASTM D5185m		<1	0	
Cadmium	ppm	ASTM D5185m		<1	0	
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 5	history1 11	history2
	ppm ppm	ASTM D5185m				
Boron		ASTM D5185m	2	5	11	
Boron Barium	ppm	ASTM D5185m ASTM D5185m	2 0 50	5 <1	11 0	
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50	5 <1 60	11 0 61	
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0	5 <1 60 1	11 0 61 1	
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950	5 <1 60 1 923	11 0 61 1 903	
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	5 <1 60 1 923 1130	11 0 61 1 903 1161	   
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995	5 <1 60 1 923 1130 1040	11 0 61 1 903 1161 1014	   
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 50 950 1050 995 1180	5 <1 60 1 923 1130 1040 1282	11 0 61 1 903 1161 1014 1289	
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	5 <1 60 1 923 1130 1040 1282 2822	11 0 61 1 903 1161 1014 1289 3632	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT	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	5 <1 60 1 923 1130 1040 1282 2822 current	11 0 61 1 903 1161 1014 1289 3632 history1	     history2
Boron Barium Molybdenum Manganese Magnesium Calcium Chosphorus Zinc Sulfur CONTAMINAN Silicon	ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 <b>limit/base</b>	5 <1 60 1 923 1130 1040 1282 2822 current 12	11 0 61 1 903 1161 1014 1289 3632 history1 11	     history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 <b>limit/base</b>	5 <1 60 1 923 1130 1040 1282 2822 2822 current 12 2	11 0 61 1 903 1161 1014 1289 3632 history1 11 4	     history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm	ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600 <b>limit/base</b> >25	5 <1 60 1 923 1130 1040 1282 2822 current 12 2 2 2 2 2 2 2 2 3 4	111 0 61 1 903 1161 1014 1289 3632 history1 11 4 27	     history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm <b>TS</b> ppm ppm	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 <b>limit/base</b> >25 >20 <b>limit/base</b> >3	5 <1 60 1 923 1130 1040 1282 2822 current 12 2 34 current	11 0 61 1 903 1161 1014 1289 3632 history1 11 4 27 history1	     history2    history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 <b>limit/base</b> >25 >20 <b>limit/base</b> >3	5 <1 60 1 923 1130 1040 1282 2822 current 12 2 34 current 0.4	111 0 61 1 903 1161 1014 1289 3632 history1 11 4 27 history1 0.2	     history2   history2  history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Solicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm t spm ppm ppm ppm ppm spm ppm spm ppm spm ppm spm s	ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600 <i>limit/base</i> >25 >20 <i>limit/base</i> >3 >20	5 <1 60 1 923 1130 1040 1282 2822 current 12 2 34 current 0.4 8.7	111 0 61 1 903 1161 1014 1289 3632 history1 11 4 27 history1 0.2 7.2	     history2   history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm t spm ppm ppm ppm ppm spm ppm spm ppm spm ppm spm s	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 <b>imit/base</b> >25 <b>imit/base</b> >3 >20	5 <1 60 1 923 1130 1040 1282 2822 <u>current</u> 12 2 34 <u>current</u> 0.4 8.7 21.4	111 0 61 1 903 1161 1014 1289 3632 history1 11 4 27 history1 0.2 7.2 19.0	    history2  history2  history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRAD	ppm ppm ppm ppm ppm ppm ppm rs ppm ppm ppm ppm ppm ppm ppm spm ppm pp	ASTM D5185m ASTM D7844 *ASTM D7844 *ASTM D7844	2 0 0 50 0 950 1050 995 1180 2600 <b>imit/base</b> >25 >20 >20 >30 >30 <b>imit/base</b>	5 <1 60 1 923 1130 1040 1282 2822 current 12 2 2822 current 12 2 34 current 0.4 8.7 21.4 current	111 0 61 1 903 1161 1014 1289 3632 history1 11 4 27 history1 0.2 7.2 19.0 history1	     history2  history2  history2  history2



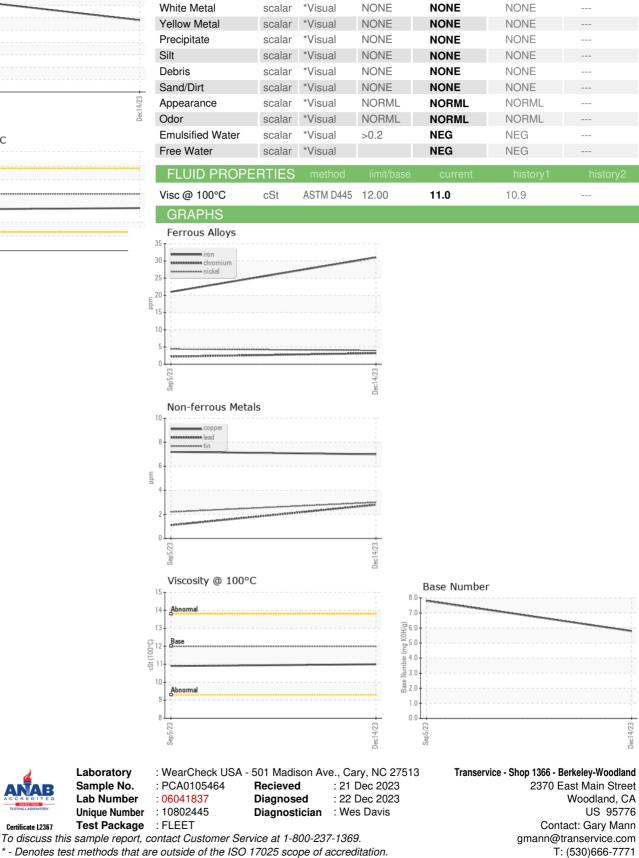
# **OIL ANALYSIS REPORT**

VISUAL









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

Certificate L2367

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