

# **OIL ANALYSIS REPORT**

Sample Rating Trend

## NORMAL

#### Area (14244Z) Walgreens Machine Id [Walgreens] 136A61449 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.

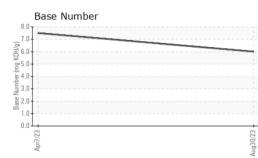
### Fluid Condition

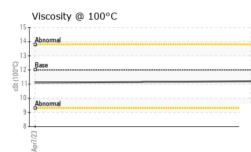
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

				AUG2023		
SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0093524	PCA0096566	
Sample Date		Client Info		30 Aug 2023	07 Apr 2023	
Machine Age	mls	Client Info		270577	244881	
Oil Age	mls	Client Info		25695	244881	
Oil Changed		Client Info		Changed	Changed	
Sample Status				NORMAL	NORMAL	
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>2.0	<1.0	<1.0	
Glycol		WC Method		NEG	NEG	
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	19	9	
Chromium	ppm		>20	1	<1	
Nickel	ppm	ASTM D5185m	>4	0	0	
Titanium	ppm	ASTM D5185m		17	8	
Silver	ppm	ASTM D5185m	>3	0	0	
Aluminum	ppm		>20	<1	0	
Lead	ppm	ASTM D5185m	>40	9	<1	
Copper	ppm	ASTM D5185m	>330	<1	<1	
Tin	ppm	ASTM D5185m	>15	<1	<1	
Vanadium	ppm	ASTM D5185m		<1	0	
Cadmium	ppm	ASTM D5185m		0	0	
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base 2	current 8	history1 10	history2
	ppm ppm					· · · · ·
Boron		ASTM D5185m	2	8	10	
Boron Barium	ppm	ASTM D5185m ASTM D5185m ASTM D5185m	2 0	8 0	10 0	
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50	8 0 47	10 0 45	
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0	8 0 47 <1	10 0 45 <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	8 0 47 <1 839	10 0 45 <1 685	
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	8 0 47 <1 839 1466	10 0 45 <1 685 1270	   
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	8 0 47 <1 839 1466 1025	10 0 45 <1 685 1270 939	   
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	8 0 47 <1 839 1466 1025 1288	10 0 45 <1 685 1270 939 1122	
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	8 0 47 <1 839 1466 1025 1288 3721	10 0 45 <1 685 1270 939 1122 3104	
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	8 0 47 <1 839 1466 1025 1288 3721 current	10 0 45 <1 685 1270 939 1122 3104 history1	
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 <b>method</b>	2 0 50 950 1050 995 1180 2600 <b>limit/base</b> >25	8 0 47 <1 839 1466 1025 1288 3721 current 6	10 0 45 <1 685 1270 939 1122 3104 history1 4	     history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm 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 ASTM D5185m	2 0 50 950 1050 995 1180 2600 <b>limit/base</b> >25	8 0 47 <1 839 1466 1025 1288 3721 current 6 2	10 0 45 <1 685 1270 939 1122 3104 history1 4 0	     history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 <b>limit/base</b> >25 >20	8 0 47 <1 839 1466 1025 1288 3721 current 6 2 8	10 0 45 <1 685 1270 939 1122 3104 history1 4 0 3	     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> >25 -20 <b>imit/base</b>	8 0 47 <1 839 1466 1025 1288 3721 current 6 2 8 8 current	10 0 45 <1 685 1270 939 1122 3104 history1 4 0 3 3 history1	     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>Imit/base</b> >25 >20 <b>Imit/base</b> >3	8 0 47 <1 839 1466 1025 1288 3721 current 6 2 8 8 current 0.4	10 0 45 <1 685 1270 939 1122 3104 history1 4 0 3 history1 0.2	     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> >25 >20 <i>limit/base</i>	8 0 47 <1 839 1466 1025 1288 3721 current 6 2 8 current 0.4 10.2	10 0 45 <1 685 1270 939 1122 3104 history1 4 0 3 history1 0.2 8.0	     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 <i>imit/base</i> >25 >20 <i>imit/base</i> >3 >20 >30	8 0 47 <1 839 1466 1025 1288 3721 current 6 2 2 8 current 0.4 10.2 22.2 current	10 0 45 <1 685 1270 939 1122 3104 history1 4 0 3 3 history1 0.2 8.0 18.6	    history2  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 D7844 *ASTM D7624	2 0 50 0 950 1050 995 1180 2600 <i>imit/base</i> >25 >20 <i>imit/base</i> >3 >20 >30	8 0 47 <1 839 1466 1025 1288 3721 <i>current</i> 6 2 8 <i>current</i> 0.4 10.2 22.2	10 0 45 <1 685 1270 939 1122 3104 history1 4 0 3 history1 0.2 8.0 18.6 history1	    history2  history2  history2  history2



# **OIL ANALYSIS REPORT**





Precipitate scalar 'Visual NONE NONE NONE Sitt scalar 'Visual NONE NONE NONE Bebris scalar 'Visual NONE NONE NONE Sand/Dirt scalar 'Visual NOR NONE NONE Appearance scalar 'Visual NORML NORML NORML Odor scalar 'Visual NORML NORML NORML Emulsified Water scalar 'Visual >0.2 NEG NEG Free Water scalar 'Visual >0.2 NEG NEG Fullid PROPERTIES method limit/base current history1 history2 Visc @ 100°C cSt ASTM D445 12.00 11.2 11.1 GRAPHS Forrous Alloys 	VISUAL		method	limit/base	current	history1	history2
Precipitate scalar 'Visual NONE NONE NONE Sitt scalar 'Visual NONE NONE NONE Sand/Dirt scalar 'Visual NONE NONE NONE Sand/Dirt scalar 'Visual NOR NONE NONE Appearance scalar 'Visual NORML NORML NORML Cdor scalar 'Visual NORML NORML NORML Emulsified Water scalar 'Visual >0.2 NEG NEG Free Water scalar 'Visual 'NORML NORML NORML ' GRAPHS Forrous Alloys 	White Metal	scalar	*Visual	NONE	NONE	NONE	
Silt scalar Visual NONE NONE NONE Debris scalar Visual NONE NONE NONE Sand/Diri scalar Visual NONE NONE NONE Appearance scalar Visual NORML NORML NORML Emulsified Water scalar Visual NORML NORML NORML Emulsified Water scalar Visual NORML NORML NORML Free Water scalar Visual NEG NEG Free Water scalar Visual NEG NEG FLUID PROPERTIES method imit/base current history1 history2 Visc @ 100°C cSt ASTM D445 12:00 11.2 11.1 GRAPHS Ferrous Alloys  Viscosity @ 100°C 	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
Debris scalar Visual NONE NONE NONE Sand/Dirt scalar Visual NONE NONE NONE Appearance scalar Visual NORML NORML NORML Odor scalar Visual NORML NORML NORML Emulsified Water scalar Visual >0.2 NEG NEG Free Water scalar Visual NEG NEG Free Water scalar Visual NORML NORML NORML NORML Free Water scalar Visual NORML NORML NORML GRAPHS Ferrous Alloys Visco @ 100°C cSt ASTM D445 12.00 11.2 11.1 Viscosity @ 100°C Viscosity @ 100°C	Precipitate	scalar	*Visual	NONE	NONE	NONE	
Sand/Dirt scalar Visual NONE NONE NONE Appearance scalar Visual NORML NORML NORML NORML Cor scalar Visual NORML NORML NORML NORML Erulisified Water scalar Visual >0.2 NEG Free Water scalar Visual NORML NORML NORML NORML Fere Water scalar Visual NORML NORML NORML NORML Fere Water scalar Visual NORML NORML NORML FLUID PROPERTIES method limit/base current history1 history2 Visc @ 100°C cSt ASTM D445 12.00 11.2 11.1 GRAPHS Ferrous Alloys 		scalar		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 Free Water scalar *Visual >0.2 NEG NEG Fee Water scalar *Visual 200 11.2 11.1 GRAPHS Ferrous Alloys  Mon-ferrous Metals  Viscosity @ 100°C  Viscosity @ 100°C  		scalar	*Visual			NONE	
Odor       scalar       *Visual       NORML       NORML       NORML          Emulsified Water       scalar       *Visual       >0.2       NEG       NEG          Free Water       scalar       *Visual       NEG       NEG          Free Water       scalar       *Visual       NEG       NEG          FLUID PROPERTIES       method       limit/base       current       history1       history2         Visc @ 100°C       cSt       ASTM D445       12.00       11.2       11.1          GRAPHS       Ferrous Alloys							
Emulsified Water scalar *Visual >0.2 NEG NEG Free Water scalar *Visual NEG NEG FLUID PROPERTIES method imit/base current history1 history2 Visc @ 100°C cSt ASTM D445 12.00 11.2 11.1 GRAPHS Ferrous Alloys Non-ferrous Metals Viscosity @ 100°C Base Number Uscosity @ 100°C Base Number					-		
Free Water scalar *Visual NEG NEG   FLUID PROPERTIES method limit/base current history1 history2   Visc @ 100°C cSt ASTM D445 12.00 11.2 11.1   GRAPHS   Ferrous Alloys   Image: Strain and S							
FLUID PROPERTIES       method       limit/base       current       history1       history2         Visc @ 100°C       cSt       ASTM D445       12.00       11.2       11.1          GRAPHS         Perrous Alloys				>0.2			
Visc @ 100°C cSt ASTM D445 12.00 11.2 11.1 GRAPHS Ferrous Alloys					NEG	NEG	
Ferrous Alloys	FLUID PROPE	RTIES	method	limit/base	current	history1	history2
Ferrous Alloys	Visc @ 100°C	cSt	ASTM D445	12.00	11.2	11.1	
Non-ferrous Metals Viscosity @ 100°C Base Number	GRAPHS						
Viscosity @ 100°C							
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Non-ferrous Metals	0	******					
Non-ferrous Metals	Apr7/2			g30/2			
Viscosity @ 100°C		L.		Au			
Viscosity @ 100°C		IS					
Viscosity @ 100°C	copper						
Viscosity @ 100°C Base Number	8 - tin		COMPOSED IN COMPOSED	and a second			
Viscosity @ 100°C Base Number	6		ARDER DARRAGE ARDER				
Viscosity @ 100°C Base Number		- BARMAR MARKAR	all.				
Viscosity @ 100°C Base Number	4	and a starter					
Viscosity @ 100°C Base Number	2						
Viscosity @ 100°C Base Number	WARMAN WARMAN						
Viscosity @ 100°C Base Number				53			
Viscosity @ 100°C Base Number	Apr7/2			1g30/2			
Base Number				Au			
		-					
	5	2					

(<sup>b</sup>/H03 <sup>5.0</sup>

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> 1.0 0.0

Apr7/23

Aug30/23 -

: 13 Sep 2023



Lab Number : 05949784 Diagnosed : 15 Sep 2023 Unique Number : 10645743 Diagnostician : Wes Davis Test Package : FLEET Contact: Shop 1376 Oil Analysis Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. shop1376@transervice.com \* - 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)

: WearCheck USA - 501 Madison Ave., Cary, NC 27513

Received

cSt (100°C)

8

Laboratory Sample No. Apr7/23

Abnorm

: PCA0093524

3425 Tremley Point Road

Transervice - Shop 1376 - Berkeley-Linden

Aug30/23

T:

F:

Linden, NJ

US 07036