

OIL ANALYSIS REPORT

(89614X) Walgreens - Tractor [Walgreens - Tractor] 136A68002

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 Rating Trend

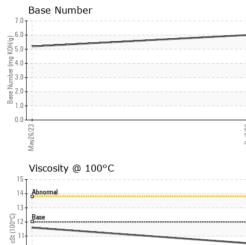


,			May2023	Oct2023									
SAMPLE INFORI	MATION	method	limit/base	current	history1	history2							
Sample Number		Client Info		PCA0093518	PCA0093508								
Sample Date		Client Info		02 Oct 2023	26 May 2023								
Machine Age	mls	Client Info		191099	181045								
Oil Age	mls	Client Info		10054	181045								
Oil Changed		Client Info		Changed	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	>80	24	39								
Chromium	ppm	ASTM D5185m	>5	<1	1								
Nickel	ppm	ASTM D5185m	>2	0	0								
Titanium	ppm	ASTM D5185m		14	6								
Silver	ppm	ASTM D5185m	>3	0	0								
Aluminum	ppm	ASTM D5185m	>30	5	3								
Lead	ppm	ASTM D5185m	>30	0	0								
Copper	ppm	ASTM D5185m	>150	1	1								
Tin	ppm	ASTM D5185m	>5	<1	<1								
Vanadium	ppm	ASTM D5185m		<1	<1								
O I I													
Cadmium	ppm	ASTM D5185m		0	0								
ADDITIVES	ppm	ASTM D5185m method	limit/base	0 current	0 history1	history2							
	ppm ppm		limit/base		-								
ADDITIVES		method		current	history1								
ADDITIVES Boron	ppm	method ASTM D5185m	2	current 18	history1 29	history2							
ADDITIVES Boron Barium	ppm ppm	method ASTM D5185m ASTM D5185m	2 0 50	current 18 0	history1 29 0	history2							
ADDITIVES Boron Barium Molybdenum	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50	current 18 0 43	history1 29 0 48	history2 							
ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0	current 18 0 43 <1	history1 29 0 48 <1	history2 							
ADDITIVES Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950	current 18 0 43 <1 726	history1 29 0 48 <1 808 1355 995	history2 							
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050	current 18 0 43 <1 726 1154	history1 29 0 48 <1 808 1355 995 1273	history2 							
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995	current 18 0 43 <1 726 1154 760	history1 29 0 48 <1 808 1355 995	history2							
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600	current 18 0 43 <1 726 1154 760 1085 2812 current	history1 29 0 48 <1 808 1355 995 1273 3910 history1	history2							
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m 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	current 18 0 43 <1 726 1154 760 1085 2812 current 7	history1 29 0 48 <1 808 1355 995 1273 3910 history1 10	history2							
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	2 0 50 950 1050 995 1180 2600 imit/base >20	current 18 0 43 <1 726 1154 760 1085 2812 current 7 9	history1 29 0 48 <1 808 1355 995 1273 3910 history1 10 6	history2							
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	2 0 50 950 1050 995 1180 2600	current 18 0 43 <1 726 1154 760 1085 2812 current 7	history1 29 0 48 <1 808 1355 995 1273 3910 history1 10	history2 history2							
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	2 0 50 950 1050 995 1180 2600 imit/base >20	current 18 0 43 <1 726 1154 760 1085 2812 current 7 9	history1 29 0 48 <1 808 1355 995 1273 3910 history1 10 6 4 history1	history2							
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 imit/base >20	current 18 0 43 <1 726 1154 760 1085 2812 current 7 9 4	history1 29 0 48 <1 808 1355 995 1273 3910 history1 10 6 4	history2 history2 history2							
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 imit/base >20 imit/base	current 18 0 43 <1 726 1154 760 1085 2812 current 7 9 4 current	history1 29 0 48 <1 808 1355 995 1273 3910 history1 10 6 4 history1	history2 history2 history2							
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 imit/base >20 >20 imit/base	current 18 0 43 <1 726 1154 760 1085 2812 current 7 9 4 current 0 0.6	history1 29 0 48 <1 808 1355 995 1273 3910 history1 10 6 4 history1 0.7	history2 history2 history2 history2 history2							
ADDITIVES 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	method ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 imit/base >20 imit/base >20 imit/base	current 18 0 43 <1 726 1154 760 1085 2812 current 7 9 4 current 0.6 11.0	history1 29 0 48 <1 808 1355 995 1273 3910 history1 10 6 4 history1 0.7 12.1	history2 <tr th="" tt<=""></tr> <tr><th>ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation</th><th>ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm</th><th>method ASTM D5185m ASTM D5185m</th><th>2 0 50 950 1050 995 1180 2600 imit/base >20 imit/base >3 >20 >3</th><th>current 18 0 43 <1 726 1154 760 1085 2812 current 7 9 4 current 0.6 11.0 21.9</th><th>history1 29 0 48 <1 808 1355 995 1273 3910 history1 10 6 4 history1 0.7 12.1 24.7</th><th>history2 history2 history2 </th></tr>	ADDITIVES 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	method ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600 imit/base >20 imit/base >3 >20 >3	current 18 0 43 <1 726 1154 760 1085 2812 current 7 9 4 current 0.6 11.0 21.9	history1 29 0 48 <1 808 1355 995 1273 3910 history1 10 6 4 history1 0.7 12.1 24.7	history2 history2 history2
ADDITIVES 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	method ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600 imit/base >20 imit/base >3 >20 >3	current 18 0 43 <1 726 1154 760 1085 2812 current 7 9 4 current 0.6 11.0 21.9	history1 29 0 48 <1 808 1355 995 1273 3910 history1 10 6 4 history1 0.7 12.1 24.7	history2 history2 history2							



10 Abnorma 9 8. May26/23

OIL ANALYSIS REPORT



	VISUAL		method	limit/base	current	history1	history2
	White Metal	scalar	*Visual	NONE	NONE	NONE	
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
	Precipitate	scalar	*Visual	NONE	NONE	NONE	
	Silt	scalar	*Visual	NONE	NONE	NONE	
	Debris	scalar	*Visual	NONE	NONE	NONE	
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
0ct2/23 -	Appearance	scalar	*Visual	NORML	NORML	NORML	
Oct	Odor	scalar	*Visual	NORML	NORML	NORML	
	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	
	Free Water	scalar	*Visual		NEG	NEG	
	FLUID PROPE	ERTIES	method	limit/base	current	history1	history2
	Visc @ 100°C	cSt	ASTM D445		10.5	11.6	
	GRAPHS						
1	Ferrous Alloys						
	40						
	35 - chromium						
	30 - nickel						
	25						
	튭 20 -						
	15						
	10						
	5						
	23	**************	**********************	/23			
	May26/23			0ct2/23			
	≥ Non-ferrous Meta	le					
	¹⁰ T						
	copper						
	8 - management tin						
	6 -						
	шdd						
	4						
	2						
	2-						
	2						
	2 0 E72932			ct2/23			
	2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			0ct2/23			
	2 0 C2 C2 C2 C2 C2 C2 C2 C2 C2 C2				Base Number		
	≥ Viscosity @ 100°(7.0	T :		
	≥ Viscosity @ 100°(7.0)		
	Viscosity @ 100°C			7.0)		
	Viscosity @ 100°C	C		7.0)		
	∑ Viscosity @ 100°C	C		7.0)		
	S Viscosity @ 100°(Abnormal Base 31 31 32 31 31 32 31 34 34 34 34 34 34 34 34 34 34 34 34 34	C		7.0)		
	∑ Viscosity @ 100°C	C		7.0) 		
	Viscosity @ 100°0	C		7.0 6.0 (b) HOX Buil Jack 4.0 Jack 4.0 Jack 4.0 See 2.0 1.0 0.0			
	Viscosity @ 100°0	C		7.0 6.0 (b) HOX Buil Jack 4.0 Jack 4.0 Jack 4.0 See 2.0 1.0 0.0			
	Viscosity @ 100°0	C		7.0 6.0 (D) 5.0 Liu 4.0 9 au 9 au 9 au 9 au 9 au 9 au 9 au 9 au) 		
laboratory	S Viscosity @ 100°(Abnormal Base Cloubly Base Cloubly W			7.0 6.0 Holy Store Base Winnber 1.0 1.0 0.0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	May26/2/3		Berkolev-Linz
Laboratory Sample No.	Viscosity @ 100°(501 Madis		7.0 6.0 1907 5.0 100 100 4.0 100 100 100 100 100 100 100 100 100 10	May26/2/3	rice - Shop 1376 -	
Laboratory Sample No. Lab Number	Viscosity @ 100°0		d :160	7.0 6.0 Holy Store Base Winnber 1.0 1.0 0.0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	May26/2/3	rice - Shop 1376 -	Berkeley-Lind Iley Point Ro Linden, I
Sample No.	Viscosity @ 100°0	501 Madia	d :160 ed :170	7.0 6.0 100 000 000 000 100 000 000 100 000 1000000	May26/2/3	rice - Shop 1376 -	lley Point Ro
Sample No. Lab Number	Viscosity @ 100°0 Abnormal Abnormal Abnormal Abnormal E E WearCheck USA - PCA0093518 05979303 FLEET	501 Madia Received Diagnost	d : 16 (ed : 17 (tician : We	ry, NC 27513 Dct 2023 s Davis	EZIQZÁREM 3 Transerv	rice - Shop 1376 -	lley Point Ro Linden, US 070 76 Oil Analy