

OIL ANALYSIS REPORT

Area (89796X) Walgreens - Tractor Machine Id [Walgreens - Tractor] 136A68074

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.



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Sample Number		Client Info		PCA0093996	PCA0093852	PCA0093917
Sample Date		Client Info		29 Aug 2023	12 Jun 2023	12 Mar 2023
Machine Age	mls	Client Info		665604	659864	646305
Oil Age	mls	Client Info		665604	659864	0
Oil Changed		Client Info		N/A	Not Changd	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Glycol		WC Method		NEG	NEG	NEG
WEAR METAL	.S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>80	10	9	14
Chromium	ppm	ASTM D5185m	>5	<1	1	2
Nickel	ppm	ASTM D5185m	>2	<1	0	1
Titanium	ppm	ASTM D5185m		2	1	1
Silver	ppm	ASTM D5185m	>3	<1	0	0
Aluminum	ppm	ASTM D5185m	>30	6	6	6
Lead	ppm	ASTM D5185m	>30	0	0	<1
Copper	ppm	ASTM D5185m	>150	4	3	4
Tin	ppm	ASTM D5185m	>5	0	<1	1
Vanadium	ppm	ASTM D5185m		<1	0	1
Cadmium	ppm	ASTM D5185m		0	0	<1
			11 1. 0			le la transition
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	Method ASTM D5185m	limit/base	current 6	history1 9	nistory2 6
	ppm ppm					,
Boron		ASTM D5185m	2	6	9	6
Boron Barium	ppm	ASTM D5185m ASTM D5185m	2 0	6 0	9 0	6 0
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50	6 0 61	9 0 61	6 0 58
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0	6 0 61 0	9 0 61 <1	6 0 58 2
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950	6 0 61 0 907	9 0 61 <1 867	6 0 58 2 877
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	6 0 61 0 907 1082	9 0 61 <1 867 1075	6 0 58 2 877 1010
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	6 0 61 0 907 1082 973	9 0 61 <1 867 1075 995	6 0 58 2 877 1010 883
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	6 0 61 0 907 1082 973 1191	9 0 61 <1 867 1075 995 1163	6 0 58 2 877 1010 883 1156
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 ASTM D5185m	2 0 50 950 1050 995 1180 2600	6 0 61 0 907 1082 973 1191 3069	9 0 61 <1 867 1075 995 1163 3283	6 0 58 2 877 1010 883 1156 2848
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 ASTM D5185m	2 0 50 950 1050 995 1180 2600	6 0 61 0 907 1082 973 1191 3069 current	9 0 61 <1 867 1075 995 1163 3283 history1	6 0 58 2 877 1010 883 1156 2848 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	2 0 50 950 1050 995 1180 2600 Limit/base >20	6 0 61 0 907 1082 973 1191 3069 current 3	9 0 61 <1 867 1075 995 1163 3283 history1 4	6 0 58 2 877 1010 883 1156 2848 history2 5
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	2 0 50 950 1050 995 1180 2600 Limit/base >20	6 0 61 0 907 1082 973 1191 3069 current 3 0	9 0 61 <1 867 1075 995 1163 3283 history1 4 0	6 0 58 2 877 1010 883 1156 2848 history2 5 4
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600 limit/base >20	6 0 61 0 907 1082 973 1191 3069 current 3 0 8	9 0 61 <1 867 1075 995 1163 3283 history1 4 0 5	6 0 58 2 877 1010 883 1156 2848 history2 5 4 5 4 5
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base >20 limit/base	6 0 61 0 907 1082 973 1191 3069 current 3 0 8	9 0 61 <1 867 1075 995 1163 3283 history1 4 0 5 history1	6 0 58 2 877 1010 883 1156 2848 history2 5 4 5 4 5 5 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ypm	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base >20 20 limit/base >20	6 0 61 0 907 1082 973 1191 3069 <i>current</i> 3 0 8 <i>current</i> 0.4	9 0 61 <1 867 1075 995 1163 3283 history1 4 0 5 <u>history1</u> 0.3	6 0 58 2 877 1010 883 1156 2848 history2 5 4 5 4 5 5 4 5 5 4 0.6
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	<pre>ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm</pre>	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 <i>limit/base</i> >20 <i>limit/base</i> >3 >20	6 0 61 0 907 1082 973 1191 3069 <i>current</i> 3 0 8 <i>current</i> 0.4 7.1	9 0 61 <1 867 1075 995 1163 3283 history1 4 0 5 <u>history1</u> 0.3 6.5	6 0 58 2 877 1010 883 1156 2848 history2 5 4 5 4 5 4 5 history2 0.6 8.5
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	<pre>ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm</pre>	ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600 imit/base >20 imit/base >3 >20 >30	6 0 61 0 907 1082 973 1191 3069 current 3 0 8 current 0.4 7.1 18.9	9 0 61 <1 867 1075 995 1163 3283 history1 4 0 5 <u>history1</u> 0.3 6.5 18.9	6 0 58 2 877 1010 883 1156 2848 history2 5 4 5 4 5 5 4 5 5 4 5 5 4 5 5 4 5 5 4 5 5 4 5 5 19.8

8.3

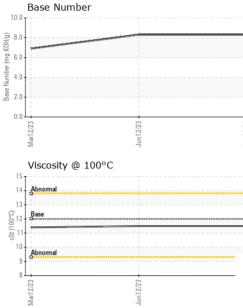
Base Number (BN) mg KOH/g ASTM D2896

6.9

8.3



OIL ANALYSIS REPORT



	VISUAL		method	limit/base	current	history1	history2
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
	Silt	scalar	*Visual	NONE	NONE	NONE	NONE
	Debris	scalar	*Visual	NONE	NONE	NONE	NONE
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
/23	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Aug29/23	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
	Emulsified Water		*Visual	>0.2	NEG	NEG	NEG
	Free Water	scalar	*Visual	20.L	NEG	NEG	NEG
				l'as 1 /ls s s s			
	FLUID PROP		method	limit/base	current	history1	history2
	Visc @ 100°C	cSt	ASTM D445	12.00	11.5	11.5	11.4
	GRAPHS						
	Ferrous Alloys						
	12 - iron						
	10 - nickel						
	8	-					
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	Mar12/23	un12/23		Aug29/23			
	-	~		Au			
	Non-ferrous Me	etals					
	10 copper						
	8 - tin						
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1	6						
	4						
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	//23	2/23 -		1/23			
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	 Viscosity @ 100			4			
	¹⁵			9.	Base Number		
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	contact Customer Se	ervice at 1-8	00-237-136	9.			ranservice.co
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