

OIL ANALYSIS REPORT

(89687X) Walgreens - Tractor [Walgreens - Tractor] 136A67126 Component

Diesel Engine

PETRO CANADA DURON SHP 10W30 (11 GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

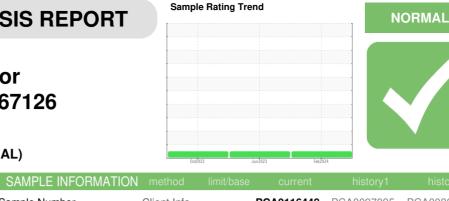
All component wear rates are normal.

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.



		method	initit/base	oanont	matory	matoryz
Sample Number		Client Info		PCA0116448	PCA0097095	PCA0082406
Sample Date		Client Info		16 Feb 2024	14 Jun 2023	17 Oct 2022
Machine Age	mls	Client Info		458498	442007	418391
Oil Age	mls	Client Info		16491	34962	11337
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
•			11 1.0			
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>110	12	38	41
Chromium	ppm	ASTM D5185m	>4	<1	0	1
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>25	5	7	7
Lead	ppm	ASTM D5185m	>45	1	0	0
Copper	ppm	ASTM D5185m	>85	1	2	2
Tin	ppm	ASTM D5185m	>4	0	0	0
Vanadium	ppm	ASTM D5185m		<1	0	<1
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	11	13	7
Barium			-			
Banan	ppm	ASTM D5185m	0	<1	0	0
Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m	0 50	<1 61	0 61	0 56
Molybdenum Manganese Magnesium	ppm	ASTM D5185m ASTM D5185m ASTM D5185m	50 0 950	61 <1 923	61 0 905	56
Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m	50 0	61 <1	61 0 905 1373	56 1
Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 0 950 1050 995	61 <1 923 1118 1088	61 0 905 1373 1077	56 1 851 1201 991
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 0 950 1050 995 1180	61 <1 923 1118 1088 1229	61 0 905 1373 1077 1391	56 1 851 1201 991 1271
Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 0 950 1050 995	61 <1 923 1118 1088	61 0 905 1373 1077	56 1 851 1201 991
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	50 0 950 1050 995 1180	61 <1 923 1118 1088 1229	61 0 905 1373 1077 1391	56 1 851 1201 991 1271
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	50 0 950 1050 995 1180 2600	61 <1 923 1118 1088 1229 3250	61 0 905 1373 1077 1391 3906	56 1 851 1201 991 1271 3637
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 0 950 1050 995 1180 2600	61 <1 923 1118 1088 1229 3250 current	61 0 905 1373 1077 1391 3906 history1	56 1 851 1201 991 1271 3637 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m	50 0 950 1050 995 1180 2600	61 <1 923 1118 1088 1229 3250 current 4	61 0 905 1373 1077 1391 3906 history1 5	56 1 851 1201 991 1271 3637 history2 6
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	50 0 950 1050 995 1180 2600 limit/base >30	61 <1 923 1118 1088 1229 3250 current 4 2	61 0 905 1373 1077 1391 3906 history1 5 2	56 1 851 1201 991 1271 3637 history2 6 1
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	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	50 0 950 1050 995 1180 2600 limit/base >30	61 <1 923 1118 1088 1229 3250 current 4 2 3	61 0 905 1373 1077 1391 3906 history1 5 2 3	56 1 851 1201 991 1271 3637 history2 6 1 1
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 0 950 1050 995 1180 2600 limit/base >30 >20	61 <1 923 1118 1088 1229 3250 current 4 2 3 3	61 0 905 1373 1077 1391 3906 history1 5 2 3 3 history1	56 1 851 1201 991 1271 3637 history2 6 1 1 1 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	50 0 950 1050 995 1180 2600 limit/base >30 limit/base >33	61 <1 923 1118 1088 1229 3250 current 4 2 3 3 current 0.4	61 0 905 1373 1077 1391 3906 history1 5 2 3 3 history1 0.5	56 1 851 1201 991 1271 3637 history2 6 1 1 1 history2 0.4
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	50 0 950 1050 995 1180 2600 imit/base >30 >20 imit/base >3	61 <1 923 1118 1088 1229 3250 current 4 2 3 3 current 0.4 7.5	61 0 905 1373 1077 1391 3906 history1 5 2 3 3 history1 0.5 9.8	56 1 851 1201 991 1271 3637 history2 6 1 1 1 history2 0.4 8.5
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	50 0 950 1050 995 1180 2600 imit/base >30 >20 imit/base >3 >20	61 <1 923 1118 1088 1229 3250 current 4 2 3 3 current 0.4 7.5 21.2	61 0 905 1373 1077 1391 3906 history1 5 2 3 history1 0.5 9.8 19.4	56 1 851 1201 991 1271 3637 history2 6 1 1 1 history2 0.4 8.5 20.7

8.4

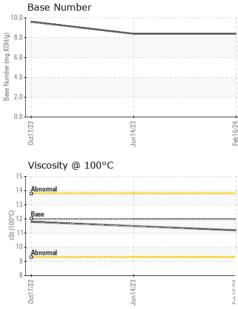
Base Number (BN) mg KOH/g ASTM D2896

9.6

8.4



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			NONE	NONE	NONE	NONE
		scalar	*Visual					
		Debris	scalar	*Visual	NONE	NONE	NONE	NONE
3	**	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Jun 14/23	Feb16/24	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
7	ι <u>τ</u>	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
		Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
		Free Water	scalar	*Visual		NEG	NEG	NEG
		FLUID PROPE	ERTIES	method	limit/base	current	history1	history2
		Visc @ 100°C	cSt	ASTM D445	12.00	11.2	11.5	11.8
		GRAPHS						
		Ferrous Alloys						
	70	40- iron						
14/23	115/	35 - nickel						
5	Ц	30						
		E 25 -						
		튭 ₂₀						
		10						
		5						
		0						
		0ct17/22	Jun14/23		Feb16/24			
		Oct	unp		Feb			
		Non-ferrous Meta	als					
		10 copper 1						
		8 - copper						
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		6						
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		2						
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		0ct17/22	Jun14/23		Feb16/24			
		_	,		lai Lai			
		Viscosity @ 100°	С			Base Number	r	
		14 - Abnormal			10			
		13-			(B ⁸	.0-		
					KOH			
		(3) 12 - Base 000 75 11-			Bu j	.0-		
		tg 11-			equal to the second sec	.0		
		10			ase N			
		Abnormal 9 -			<u> </u>	.0-		
		8	m					
		0ct17/22	Jun14/23		Feb16/24	0ct17/22	Jun 14/23	
		00	Jur		Fet	00	Jur	
	Laboratory	: WearCheck USA - 50	01 Madico		NC 27512	Transarvia	e - Shop 1373 - Berkeley	Anderson/Dendera
	Sample No.	: PCA0116448	Recei		Feb 2024	Transervic		liance Parkw
AB	Lab Number		Teste		7 Feb 2024			Willamston,
LABORATORY	Unique Number				Feb 2024 - V	Wes Davis		US 296
ate L2367	Test Package	: FLEET	-				Contact:	Sonny Bouch
	c campla ropar	t, contact Customer Ser	vice at 1-8	300-237-1369	2		sboucher@t	ranservice co
		t are outside of the ISO						(864)226-23

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