

OIL ANALYSIS REPORT

(50952Z) Walgreens - Tractor [Walgreens - Tractor] 136A63270

Diesel Engine

Fluid PETRO CANADA DURON SHP 10W30 (11 GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

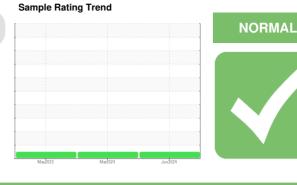
All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

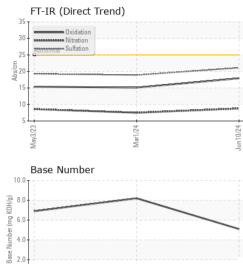
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

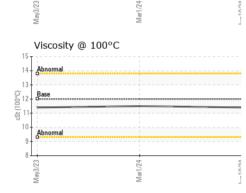


SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0094028	PCA0093948	PCA0093871
Sample Date		Client Info		10 Jun 2024	01 Mar 2024	03 May 2023
Machine Age	mls	Client Info		229348	206086	107138
Oil Age	mls	Client Info		107138	206086	0
Oil Changed		Client Info		Changed	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
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	>80	27	15	21
Chromium	ppm	ASTM D5185m	>5	4	2	2
Nickel	ppm	ASTM D5185m	>2	<1	0	0
Titanium	ppm	ASTM D5185m		2	2	2
Silver	ppm	ASTM D5185m	>3	<1	0	<1
Aluminum	ppm	ASTM D5185m	>30	8	7	7
Lead	ppm	ASTM D5185m	>30	0	0	0
Copper	ppm	ASTM D5185m	>150	12	11	63
Tin	ppm	ASTM D5185m	>5	0	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	6	8	8
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum						
worybuenum	ppm	ASTM D5185m	50	61	60	60
Manganese	ppm ppm	ASTM D5185m ASTM D5185m	50 0	61 1	60 <1	60 <1
,				-		
Manganese	ppm	ASTM D5185m	0	1	<1	<1
Manganese Magnesium	ppm ppm	ASTM D5185m ASTM D5185m	0 950	1 958	<1 913	<1 964
Manganese Magnesium Calcium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0 950 1050	1 958 1147	<1 913 1065	<1 964 1181
Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 950 1050 995	1 958 1147 1062	<1 913 1065 1017	<1 964 1181 970
Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 950 1050 995 1180	1 958 1147 1062 1291	<1 913 1065 1017 1205	<1 964 1181 970 1251
Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 950 1050 995 1180 2600 limit/base	1 958 1147 1062 1291 2864	<1 913 1065 1017 1205 3172	<1 964 1181 970 1251 2777
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 950 1050 995 1180 2600 limit/base	1 958 1147 1062 1291 2864 current	<1 913 1065 1017 1205 3172 history1	<1 964 1181 970 1251 2777 history2
Maganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 950 1050 995 1180 2600 limit/base >20	1 958 1147 1062 1291 2864 current 7	<1 913 1065 1017 1205 3172 history1 5	<1 964 1181 970 1251 2777 history2 4
Maganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m	0 950 1050 995 1180 2600 limit/base >20	1 958 1147 1062 1291 2864 current 7 3	<1 913 1065 1017 1205 3172 history1 5 3	<1 964 1181 970 1251 2777 history2 4 2
Maganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 950 1050 995 1180 2600 limit/base >20	1 958 1147 1062 1291 2864 current 7 3 13	<1 913 1065 1017 1205 3172 history1 5 3 13	<1 964 1181 970 1251 2777 history2 4 2 24
Maganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	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	0 950 1050 995 1180 2600 imit/base >20 imit/base >3	1 958 1147 1062 1291 2864 current 7 3 13 current	<1 913 1065 1017 1205 3172 history1 5 3 13 history1	<1 964 1181 970 1251 2777 history2 4 2 24 history2
Maganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	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 ASTM D5185m ASTM D5185m	0 950 1050 995 1180 2600 imit/base >20 imit/base >3	1 958 1147 1062 1291 2864 <i>current</i> 7 3 13 <i>current</i> 0.7	<1 913 1065 1017 1205 3172 history1 5 3 13 history1 0.4	<1 964 1181 970 1251 2777 history2 4 2 24 history2 0.5
Maganese 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 D51854	0 950 1050 995 1180 2600 limit/base >20 limit/base >3 >3	1 958 1147 1062 1291 2864 <u>current</u> 7 3 13 <u>current</u> 0.7 8.8	<1 913 1065 1017 1205 3172 history1 5 3 13 history1 0.4 7.5	<1 964 1181 970 1251 2777 history2 4 2 24 history2 0.5 8.6
Maganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRAE	ppm 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 ASTM D5185m *ASTM D7844 *ASTM D7624 *ASTM D7415	0 950 1050 995 1180 2600 imit/base >20 20 imit/base >3 >20 30 imit/base	1 958 1147 1062 1291 2864 <i>current</i> 7 3 13 <i>current</i> 0.7 8.8 21.1 <i>current</i>	<1 913 1065 1017 1205 3172 history1 5 3 13 history1 0.4 7.5 18.9 history1	<1 964 1181 970 1251 2777 history2 4 24 history2 0.5 8.6 19.3 history2
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 ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D7844 *ASTM D7624 *ASTM D7624 *ASTM D7615	0 950 1050 995 1180 2600 imit/base >20 imit/base >3 >20 >30	1 958 1147 1062 1291 2864 <u>current</u> 7 3 13 <u>current</u> 0.7 8.8 21.1	<1 913 1065 1017 1205 3172 history1 5 3 13 history1 0.4 7.5 18.9	<1 964 1181 970 1251 2777 history2 4 2 24 history2 0.5 8.6 19.3



OIL ANALYSIS REPORT





	VISUAL						
	VISUAL		method	limit/base	current	matory	history
	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
	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
	Free Water	scalar	*Visual		NEG	NEG	NEG
	FLUID PROP	PERTIES	method	limit/base	current	history1	history
	Visc @ 100°C	cSt	ASTM D445	5 12.00	11.4	11.5	11.4
	GRAPHS						
	Ferrous Alloys						
	25 - iron			/			
	20 - nickel						
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	for the second s	tals					
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	for the second s	Itals					
	ropper lead so	tals					
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	70 60 50 50 10 20 10						
	70 60 50 40 20 10 0 50 50 10 0 50 50 10 0 50 50 10 10 10 10 10 10 10 10 10 10 10 10 10	Mari24		Jun 10/24			
	70 60 50 50 10 20 10	Mari24		Jun10/24	Base Numbe	r	
	70 60 50 40 40 20 10 0 Copper lead 50 0 0 Copper lead 50 0 0 0 Copper lead 50 0 0 0 0 0 0 0 0 0 0 0 0 0	Mari24		Jun1024)T ;	۲. 	
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	70 60 50 50 50 50 50 50 50 50 50 5	boC Patrone Patrone		0.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0			
	70 60 50 50 50 50 50 50 50 50 50 5	Mari24		9.0 8.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9		Mart1/24	
	70 60 50 50 50 50 50 50 50 50 50 5	beC Maritz4		9.0 8.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9	CZEVARM	Mar1/24	kolov Merene V
	70 60 50 50 50 50 50 50 50 50 50 5	beC Maritz4		9.0 8.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9	CZEVARM	+21/12EW vice - Shop 1372 - Ber	
	70 60 50 50 50 50 50 50 50 50 50 5	p°C bZluew 501 Madisc	ived :1 ed :1	y, NC 27513 7 Jun 2024 9 Jun 2024	CZECENEW	۲/۱۳۳۹ vice - Shop 1372 - Ber 175	500 Perris E
r r	70 60 50 50 50 50 50 50 50 50 50 5	b°C b71mW 501 Madisc Rece Testa	ived :1 ed :1	9.0 8.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9	CZECENEW	vice - Shop 1372 - Ber 175 Mo	keley-Moreno V 500 Perris E reno Valley, US 92 tact: Ryan (

To discuss this sample repo * - 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)

Report Id: TSV1372 [WUSCAR] 06212829 (Generated: 06/21/2024 22:50:39) Rev: 1

Certificate L2367

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