

## **OIL ANALYSIS REPORT**

### (16085Z) Walgreens - Tractor [Walgreens - Tractor] 136A61262 Component

**Diesel Engine** 

PETRO CANADA DURON SHP 10W30 (11 GAL)

#### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

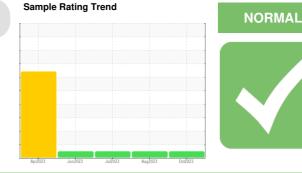
All component wear rates are normal.

#### 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.

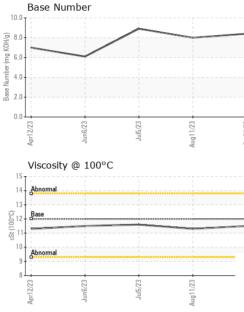


SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0105420	PCA0093569	PCA0093819
Sample Date		Client Info		24 Oct 2023	11 Aug 2023	05 Jul 2023
Machine Age	mls	Client Info		297757	5184	308081
Oil Age	mls	Client Info		25000	197	50000
Oil Changed		Client Info		Not Changd	Changed	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	6	11	9
Chromium	ppm	ASTM D5185m	>5	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m		<1	6	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>30	3	2	3
Lead	ppm	ASTM D5185m	>30	0	0	0
Copper	ppm	ASTM D5185m	>150	3	0	2
Tin	ppm	ASTM D5185m	>5	0	<1	0
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	3	11	12
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	50	62	48	64
Manganese	ppm	ASTM D5185m	0	0	<1	0
Magnesium	ppm	ASTM D5185m	950	932	850	1042
Calcium	ppm	ASTM D5185m	1050	1091	1055	1146
Phosphorus	ppm	ASTM D5185m	995	989	985	1119
Zinc	ppm	ASTM D5185m	1180	1249	1214	1369
Sulfur	ppm	ASTM D5185m	2600	3128	3789	3985
CONTAMINAN	TS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>20	4	2	4
Sodium	ppm	ASTM D5185m		0	<1	<1
Potassium	ppm	ASTM D5185m	>20	5	2	1

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.3	0.6	0.2
Nitration	Abs/cm	*ASTM D7624	>20	6.9	6.9	6.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.0	17.9	18.3
FLUID DEGRAD	ATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.8	13.6	13.8
Base Number (BN)	ma KOH/a	ASTM D2896		8.4	8.0	8.9



# **OIL ANALYSIS REPORT**



		VISUAL		method	limit/base	e current	history1	histo	ory2
		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	
Jul5/23	Aug11/23 0ct24/23	Appearance	scalar	*Visual	NORML	NORML	NORML	NORM	/IL
٦٢	Aug	Odor	scalar	*Visual	NORML	NORML	NORML	NORM	/IL
		Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG	
		Free Water	scalar	*Visual		NEG	NEG	NEG	
		FLUID PROPE	RTIES	method	limit/base	current	history1	histo	ry2
		Visc @ 100°C	cSt	ASTM D445	12.00	11.5	11.3	11.6	
		GRAPHS							
· • •] • • • • • • • • • • •		Ferrous Alloys							
33		40 iron							
Jul5/23	Aug11/23	35 - management of the second							
-	Aı	30							
		E 25 20							
		15							
		5			No. of Concession, Name				
		0	*******						
		Apr12/23 Jun6/23	Jul5/23	Aug11/23	0ct24/23				
		Apr	7	Aug	Oct				
		Non-ferrous Meta	ls						
		40 copper							
		35 - Reason lead							
		30 25							
		E 20							
		15							
		10							
		5							
		Apr12/23	Jul5/23	Aug11/23	0ct24/23				
		Apr	٦٢	BnB	Oct				
		Viscosity @ 100°C	2			Base Number			
		15				9.0 T	$\sim$		
		14 - Abnormal				8.0	/		
		13			Base Number (mg KOH/g)				
		0 12 Base		1	N Bm	5.0		1	
		2012 Base			nber	4.0			
		10			Nur Nur	3.0 -			
		Abnormal		1					
		0				1.0			
		2/23	Jul5/23 -	1/23		2/23 0.0	Jul5/23 -	1/23	
		Apr12/23 Jun6/23	Jul	Aug11/23	0ct24/23	Apr12/23 Jun6/23	Jul	Aug11/23	
,	Laboratory	· WearCheck USA - I	501 Madie		rv NC 275	13 Trancorvi	ce - Shon 1365 -	Rerkelov-No	zare
	Laboratory Sample No.	: WearCheck USA - { : PCA0105420				13 Transervi	ce - Shop 1365 - 6813		
	Laboratory Sample No. Lab Number	: PCA0105420	501 Madis Received Diagnose	<b>d</b> : 09	ry, NC 275 <sup>.</sup> Nov 2023 Nov 2023	13 Transervi	6813	Berkeley-Na Chrisphalt ath Borougl	Driv
	Sample No.	: PCA0105420 : <mark>06002640</mark> : 10736402	Received	d : 09   ed : 09	Nov 2023	13 Transervi	6813 Ba	Chrisphalt	Driv h, P 801

VISUAI method limit/base current history1 history2

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

F: (610)837-8105