

## **OIL ANALYSIS REPORT**

### Area (35747Z) Walgreens - Tractor [Walgreens - Tractor] 136A62532

**Diesel Engine** Fluic

PETRO CANADA DURON SHP 10W30 (11 GAL)

#### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

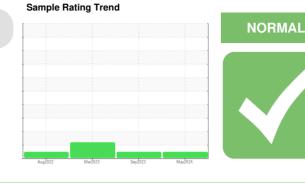
All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the oil.

#### Fluid Condition

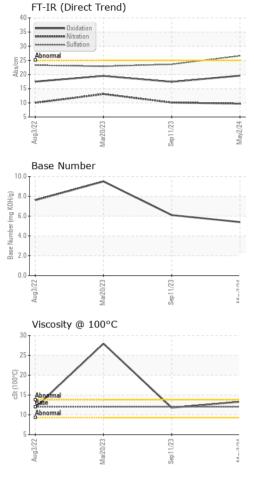
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.



SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0123365	PCA0106143	PCA0095103
Sample Date		Client Info		02 May 2024	11 Sep 2023	20 Mar 2023
Machine Age	mls	Client Info		306875	249730	183359
Oil Age	mls	Client Info		57145	66371	66150
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	ABNORMAL
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>2.0	<1.0	<1.0	<1.0
Water		WC Method		NEG	NEG	NEG
Glycol		WC Method	20.L	NEG	NEG	NEG
WEAR METAL	0		limit/bass	-		
		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	26	24	35
Chromium	ppm	ASTM D5185m	>20	<1	2	3
Nickel	ppm	ASTM D5185m	>4	0	2	2
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	5	5	<u> </u>
Lead	ppm	ASTM D5185m	>40	3	<1	0
Copper	ppm	ASTM D5185m	>330	5	9	6
Tin	ppm	ASTM D5185m	>15	<1	1	<1
Vanadium	ppm	ASTM D5185m		0	<1	0
Cadmium	ppm	ASTM D5185m		0	<1	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	49	4	2
Barium	ppm	ASTM D5185m	0	1	0	0
Molybdenum	ppm	ASTM D5185m	50	86	62	69
Manganese	ppm	ASTM D5185m	0	1	2	<1
Magnesium	ppm	ASTM D5185m	950	507	970	930
Calcium	ppm	ASTM D5185m	1050	1525	1296	1179
Phosphorus	ppm	ASTM D5185m	995	1143	1027	1042
Zinc	ppm	ASTM D5185m	1180	1313	1302	1249
Sulfur	ppm	ASTM D5185m	2600	3399	3505	2521
CONTAMINAN	TS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	6	8	7
Sodium	ppm	ASTM D5185m		2	4	<1
Potassium	ppm	ASTM D5185m	>20	6	14	3
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	1.3	1.3	1.3
Nitration	Abs/cm	*ASTM D7624		9.7	10.1	13.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	26.6	23.6	22.9
FLUID DEGRA		method	limit/base	ourropt	history1	history2
Oxidation Base Number (BN)	Abs/.1mm mg KOH/g	*ASTM D7414 ASTM D2896	>25	19.6 5.4	17.4 6.1	19.5 9.5



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		VISUAL		method	limit/base	current	history1	history2
		White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
		Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Addition of the Design	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	1/24	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Sep 11/23	May2/24	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		method	limit/base	current	history1	history2
		Visc @ 100°C	cSt	ASTM D445		13.3	11.8	27.97
		GRAPHS	001					
		Ferrous Alloys						
23	ve	35 30 iron						
Sep 11/23	J.C.∼IA	25						
		E 15						
		10-						
		5						
		Aug3/22		Sep 11/23 -	May2/24 -			
		Aug Mar2		Sep 1	May			
		Non-ferrous Meta	ls					
Sep11/23	VGC	35 copper						
Sep	VV.	30 - management lead						
		25						
		E 20						
		<sup>15</sup> 15						
		10		~				
		5-			-			
		0		Concernanting Production	Andrewson .			
		Aug3/22 Mar20/23		Sep 11/23	May2/24			
		ء Viscosity @ 100°C		Sel	M			
		30 T T T T T T T T T T T T T T T T T T T			10.0	Base Numbe	r 	
						1		
		25						
		25						
		25						
		25				)		
						)		
		25 20 20 3 15 Abnormal			0.8 0.8 (0H/d) per (m8			
		25 0,20 15 15 Abpormal			(0)HOX Bud and the second seco			
		25 G 20 3 15 Abpormal Base 10 Abnormal 5		123	(0)HOX Bull Jack 4.0 8.0 9.0 9.0 9.0 9.0 9.0 0.0			1/23
		25 0,20 15 15 Abpormal		Sep11/23	(0)HOX Bud and the second seco		Mar2023	Sep 11/23
	Laboratory	25 (3-0001) to 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	1 Madiaa		4.0 Base Mumber (n)	Aug3/22		
	Laboratory Sample No.	25 (2000) 15 Abnormal 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	1 Madiso Recei	n Ave., Cary	(0)HOX Bull Jaquing 4.0 +272/24W , NC 277513	Aug3/22	e - Shop 1373 - Berkel	ey-Anderson/Pendergr
	Laboratory Sample No. Lab Number	25 2000 200 200 200 200 200 200		n Ave., Cary i <b>ved</b> : 14 i <b>d</b> : 15	, NC 27513 May 2024 May 2024	Transervic	e - Shop 1373 - Berkel	
	Sample No. Lab Number Unique Number	25 200 20 20 40 40 5 5 5 5 5 5 5 5 5 5 5 5 5	Recei	n Ave., Cary i <b>ved</b> : 14 i <b>d</b> : 15	, NC 27513 May 2024	Transervic	e - Shop 1373 - Berkel 101 .	ey-Anderson/Pendergr Alliance Parkw Willamston, S US 296
Ificate L2367	Sample No. Lab Number Unique Number Test Package	25 200 20 20 40 40 5 5 5 5 5 5 5 5 5 5 5 5 5	Recei Teste Diagr	n Ave., Cary ived : 14 id : 15 nosed : 16	, NC 27513 May 2024 May 2024 - Se	Transervic	e - Shop 1373 - Berkel 101 . Contact	ey-Anderson/Pendergr Alliance Parkw Willamston, S

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Submitted By: Sonny Boucher

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