

## **OIL ANALYSIS REPORT**

#### Area (51469Z) Walgreens - Tractor Machine Id [Walgreens - Tractor] 136B63312

**Diesel Engine** 

PETRO CANADA DURON SHP 10W30 (11 GAL)

### DIAGNOSIS

#### Recommendation

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

Elevated aluminum (AI) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. No other contaminants were detected in the oil.

#### Fluid Condition

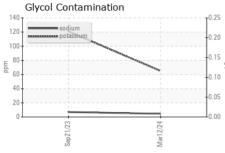
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

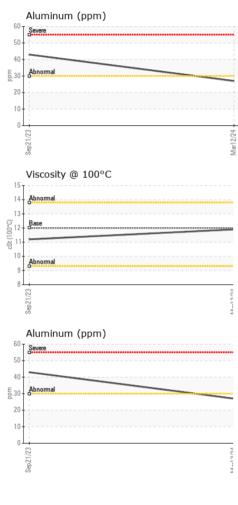
63312							
AL)			Sep2023	Mar2024			
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2	
Sample Number		Client Info		PCA0106561	PCA0106537		
Sample Date		Client Info		12 Mar 2024	21 Sep 2023		
Machine Age	mls	Client Info		153314	75281		
Oil Age	mls	Client Info		73000	0		
Oil Changed		Client Info		Changed	Changed		
Sample Status				NORMAL	ABNORMAL		
CONTAMINAT	ION	method	limit/base	current	history1	history2	
Fuel		WC Method	>5	<1.0	<1.0		
Water		WC Method	>0.2	NEG	NEG		
Glycol		WC Method		NEG	NEG		
WEAR METAL	S	method	limit/base	current	history1	history2	
ron	ppm	ASTM D5185m	>80	48	65		
Chromium	ppm	ASTM D5185m	>5	4	5		
Nickel	ppm	ASTM D5185m	>2	<1	<1		
Titanium	ppm	ASTM D5185m		<1	<1		
Silver	ppm	ASTM D5185m	>3	0	0		
Aluminum	ppm	ASTM D5185m	>30	27	43		
_ead	ppm	ASTM D5185m	>30	<1	0		
Copper	ppm	ASTM D5185m	>150	115	<b>A</b> 219		
Tin	ppm	ASTM D5185m	>5	<1	3		
Vanadium	ppm	ASTM D5185m		<1	0		
Cadmium	ppm	ASTM D5185m		0	0		
ADDITIVES		method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	2	12	26		
Barium	ppm	ASTM D5185m	0	0	0		
Molybdenum	ppm	ASTM D5185m	50	54	42		
Vanganese	ppm	ASTM D5185m	0	2	4		
Magnesium	ppm	ASTM D5185m	950	855	638		
Calcium	ppm	ASTM D5185m	1050	1368	1929		
Phosphorus	ppm	ASTM D5185m	995	915	762		
Zinc	ppm	ASTM D5185m	1180	1128	956		
Sulfur	ppm	ASTM D5185m	2600	2321	2016		
CONTAMINAN	NTS	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>20	10	9		
Sodium	ppm	ASTM D5185m		4	7		
Potassium	ppm	ASTM D5185m	>20	65	121		
INFRA-RED		method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	>3	0.8	0.8		
Nitration	Abs/cm	*ASTM D7624	>20	11.9	14.0		
		*ACTM D741E	> 20	23.9	24.6		
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.5	24.0		
Sulfation FLUID DEGRA			limit/base	current	history1	history2	
			limit/base			history2	

Sample Rating Trend

NORMAL







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	т0.25	VISUAL		method	limit/base	current	history1	history2		
	-0.20	White Metal	scalar	*Visual	NONE	NONE	NONE			
		Yellow Metal	scalar	*Visual	NONE	NONE	NONE			
South Care and a state of the s	-0.15 egy -0.10	Precipitate	scalar	*Visual	NONE	NONE	NONE			
	-0.10 8	Silt	scalar	*Visual	NONE	NONE	NONE			
	-0.05	Debris	scalar	*Visual	NONE	NONE	NONE			
	0.00	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE			
2/24	-0.00	Appearance	scalar	*Visual	NORML	NORML	NORML			
Mar12/24		Odor	scalar	*Visual	NORML	NORML	NORML			
		Emulsified Water	scalar	*Visual	>0.2	NEG	NEG			
		Free Water	scalar	*Visual		NEG	NEG			
		FLUID PROPE		method	limit/base	current	history1	history2		
		Visc @ 100°C	cSt	ASTM D445		11.9	11.2			
		GRAPHS								
		Ferrous Alloys								
	24	for iron								
	Mar12/24	50								
		법 30 -								
		20								
		10								
		Sep21/23			Mar12/24 -					
		Sep 2			Marl					
		Non-ferrous Meta	ls							
	C C	250 copper								
	. F. U.	200 - tin								
		150								
		E								
		100-								
		50 -								
		50-								
		0 چ		-	24					
		ep21/23			lar12/24					
	КС,	» Viscosity @ 100°	_		$\geq$					
	C114	<sup>15</sup> T			5.0	Base Number				
		14 - Abnormal			3.0					
		13			€ <sup>4.0</sup>					
					N N N					
		30 12 - Base			(B)HOX HOX Buy tag unun ese 1.0. Buy tag tag tag tag tag tag tag tag tag tag					
					FN 2.0-					
		Abnormal			en 1.0-					
		9-			1.0					
					-0.0	23				
		Sep21/23			Mar12/24	Sep 21/23				
		~			2	0				
		: WearCheck USA - 50	e - Shop 1369 - Be	<mark>rkeley-Waxahach</mark> i '10 Ovilla Roa						
4	Laboratory									
NAB	Sample No.	: PCA0106561	Recei Teste							
	Sample No. Lab Number Unique Number	: PCA0106561 : <mark>06122975</mark> : 10937126		d : 20		Baldridge		Vaxahachie, TX US 7516		
TREDITION	Sample No. Lab Number Unique Number Test Package	: PCA0106561 : <mark>06122975</mark> : 10937126	Teste Diagn	d : 20 osed : 21	) Mar 2024 Mar 2024 - Don	Baldridge	V Conta	/axahachie, T		

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Contact/Location: Robert Beal - TSV1369