

Area (P1184214) Preferred Service-Tractor Machine Id [Preferred Service-Tractor] 192A32023B Component

Diesel Engine

PETRO CANADA DURON UHP 5W30 (36 QTS)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

Metal levels are typical for a new component breaking in.

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. 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.

rs)				Jan2024		
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0115787		
Sample Date		Client Info		19 Jan 2024		
Machine Age	mls	Client Info		60764		
Oil Age	mls	Client Info		14662		
Oil Changed		Client Info		Changed		
Sample Status				NORMAL		
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>6.0	<1.0		
Water		WC Method	>0.2	NEG		
Glycol		WC Method		NEG		
WEAR METAL	S	method	limit/base	current	history1	history2
ron	ppm	ASTM D5185m	>100	52		
Chromium	ppm	ASTM D5185m	>20	1		
Nickel	ppm	ASTM D5185m	>2	4		
Titanium	ppm	ASTM D5185m		<1		
Silver	ppm	ASTM D5185m	>2	0		
Aluminum	ppm	ASTM D5185m	>25	14		
_ead	ppm	ASTM D5185m	>40	0		
Copper	ppm	ASTM D5185m	>330	256		
Tin	ppm	ASTM D5185m	>15	3		
Vanadium	ppm	ASTM D5185m		0		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	12		
Barium	ppm	ASTM D5185m	0	2		
Volybdenum	ppm	ASTM D5185m	64	67		
Manganese	ppm	ASTM D5185m	0	1		
Vagnesium	ppm	ASTM D5185m	1160	1095		
Calcium	ppm	ASTM D5185m		857		
Phosphorus	ppm	ASTM D5185m	1160	882		
Zinc	ppm	ASTM D5185m		1219		
Sulfur	ppm	ASTM D5185m		2523		
CONTAMINAN	TS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	15		
Sodium	ppm	ASTM D5185m		5		
Potassium	ppm	ASTM D5185m	>20	47		
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.9		
Nitration	Abs/cm	*ASTM D7624	>20	11.5		
Sulfation	Abs/.1mm	*ASTM D7415	>30	25.0		
FLUID DEGRAD		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	24.1		
Base Number (BN)	mg KOH/g	ASTM D2896		5.6		

Sample Rating Trend



NORMAL

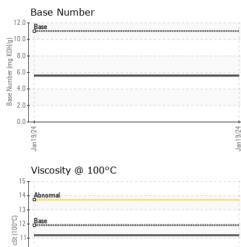


10 Abnormal

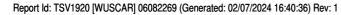
8. Jan 19/24

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OIL ANALYSIS REPORT



	VISUAL		method				history2
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
	Precipitate	scalar	*Visual	NONE	NONE		
	Silt	scalar	*Visual	NONE	NONE		
	Debris	scalar	*Visual	NONE	NONE		
	Sand/Dirt	scalar	*Visual	NONE	NONE		
Jan 19,24	Appearance	scalar	*Visual	NORML	NORML		
Jan	Odor	scalar	*Visual	NORML	NORML		
	Emulsified Water	scalar	*Visual	>0.2	NEG		
	Free Water	scalar	*Visual		NEG		
	FLUID PROPE	RTIES	method	limit/base	current	history1	history2
	Visc @ 100°C	cSt	ASTM D445	11.9	11.2		
	GRAPHS						
	Ferrous Alloys						
, in the second s	60 iron						
C.01	50 - Bressen chromium						
	40						
	<u>a</u> 30 -						
	20-						
	10-						
	19/24						
	Jan 19,			Jan 19/24			
	→ Non-ferrous Metal	\$		7			
	³⁰⁰						
	250 - copper						
	tin						
	200						
	툡 150 -						
	100						
	50-						
	24 10			24			
	Jan 19/24			Jan 19/24			
	→ Viscosity @ 100°C			7			
	¹⁵ T			12	Base Number		
	14 - Abnormal				Base		
	13			10 (P)	.0+		
				a KoH	.0+		
	ි 12 - Base සු 11-			Base Number (mg KOH(g) 6 0 0 0	.0-		
	-			Mumk V	.0-		
	10 - Abnormal			Base			
	9			2	.0		
	84			0	.01		
	Jan 19/24			Jan19/24	Jan 19/24		
	Ť			ŗ	ň		
Laboratory	: WearCheck USA - 50 ⁻	1 Madiso	n Ave., Carv	, NC 27513	Transer	vice - Shop 1920 -	Preferred Servi
Sample No.	: PCA0115787	Recei	ved : 07	' Feb 2024		1955 W. North	
Lab Number		Teste		Feb 2024			Melrose Park,
		Diagn	iosed : 07	Feb 2024 - V	Nes Davis	O such such	US 601
Unique Number							
Unique Number Test Package discuss this sample report,		ice at 1_0	00-227-1260	2		tlindemann@	Tom Lindema



Submitted By: Tom Lindeman