

OIL ANALYSIS REPORT

Sample Rating Trend







Machine Id

Component

Diesel Engine

PETRO CANADA DURON SHP 10W30 (--- 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 condition of the oil is acceptable for the time in service.

SAMPLE INFORM		method	limit/base	current	history i	nistory2
Sample Number		Client Info		PC0075143		
Sample Date		Client Info		20 Dec 2023		
Machine Age	hrs	Client Info		469511		
Oil Age	hrs	Client Info		5651		
Oil Changed		Client Info		Changed		
Sample Status				NORMAL		
· · ·						
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0		
Water		WC Method	>0.2	NEG		
Glycol		WC Method		NEG		
-	<u>_</u>	and a star of the	Provide Review		In the test works	la la tana 0
WEAR METAL	5	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	5		
Chromium	ppm	ASTM D5185(m)	>20	0		
Nickel	ppm	ASTM D5185(m)	>4	0		
Titanium	ppm	ASTM D5185(m)		0		
Silver	ppm	ASTM D5185(m)	>3	0		
Aluminum	ppm	ASTM D5185(m)	>20	2		
Lead	ppm	ASTM D5185(m)	>40	0		
Copper	ppm	ASTM D5185(m)	>330	<1		
Tin	ppm	ASTM D5185(m)	>15	0		
Antimony	ppm	ASTM D5185(m)		0		
Vanadium	ppm	ASTM D5185(m)		0		
Beryllium	ppm	ASTM D5185(m)		0		
Cadmium	ppm	ASTM D5185(m)		0		
ADDITIVES		method	limit/base	current	history1	history2
					Thistory I	Thistoryz
Boron	ppm	ASTM D5185(m)	2	2		
Barium	ppm	ASTM D5185(m)	0	0		
Molybdenum	ppm	ASTM D5185(m)	50	59		
Manganese	ppm	ASTM D5185(m)	0	0		
Magnesium	ppm	ASTM D5185(m)	950	958		
Calcium	ppm	ASTM D5185(m)	1050	1089		
Phosphorus	ppm	ASTM D5185(m)	995	1036		
Zinc	ppm	ASTM D5185(m)	1180	1191		
Sulfur	ppm	ASTM D5185(m)	2600	2729		
Lithium	ppm	ASTM D5185(m)		<1		
CONTAMINAN	TS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	6		
Sodium	ppm	ASTM D5185(m)		2		
Potassium	ppm	ASTM D5185(m)	>20	2		
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	0.1		
Nitration	Abs/cm	ASTM D7624*	>20	5.8		
Sulfation	Abs/.1mm	ASTM D7415*	>30	18.5		
Canadon	7 10 07 1 1 1 1 1 1			10.0		



100 T

95. 90 (J=01) 15 (1=00) Base

70 Abno 65 60 Dec20/23

100

70 Abnorma 65. 60. Dec20/23

Abnormal 95 90 () 85. 80. 75. 85 Base

OIL ANALYSIS REPORT

scosity @ 40°C	FLUID DEGRAD	DATION	method	limit/base	Э	current	history1	history2
normal	Oxidation	Abs/.1mm	ASTM D7414*	>25	1	3.8		
8	VISUAL		method	limit/base	Э	current	history1	history2
	White Metal	scalar	Visual*	NONE	N	ONE		
oomal	Yellow Metal	scalar	Visual*	NONE	Ν	IONE		
	Precipitate	scalar	Visual*	NONE	Ν	IONE		
Dec20/23	Silt		Visual*	NONE		IONE		
			Visual*	NONE		ONE		
cosity @ 40°C	Sand/Dirt		Visual*	NONE		LITE		
normal	Appearance Odor		Visual* Visual*	NORML NORML				
	Emulsified Water		Visual*	>0.2				
5 8	Free Water		Visual*	20.L		IEG		
	FLUID PROPE		method	limit/base		current	history1	history2
normal	Visc @ 40°C		ASTM D7279(m)	80.1	7	7.2		
			ASTM D7279(m)	12.00		1.6		
Dec20/23	Viscosity Index (VI)		ASTM D2270*	144		43		
ä	GRAPHS					-		
	Iron (ppm)				Lei	ad (ppm)		
	³⁰⁰ T				100 Sev			
	200 Severe				T I			
	Abnormal			udd	50 - Abr	normal		
	0							
)ec20/23			Dec20/23	Dec20/23			Dec20/23
	Dec			Dec				Dec
	Aluminum (ppm)				Ch	romium (ppr	m)	
	Severe				Smi	ere		
				mag	Abr	normal		
	20 - Abnormal				20-			
	l			23	53 0			23.
	Dec20/23			Dec20/23	Dec20/23			Dec20/23
	Copper (ppm)					con (ppm)		
	400 Severe				80 - Sev			
	300				60			
	톱 200 -			DDD	40 Abr	normal		
	100				20			
	, Dec20/23			Dec20/23 -	Dec20/23			Dec20/23 .
	—			Dec				Deci
	Viscosity @ 100°C				6.0	ot %		
					Sev	ere		1
	C 14 Abnormal Base C 12 Abnormal S 10 Abnormal			oot %	4.0 Abr	normal		
	7 3 ₁₀ Abnormal			co.	2.0-			
					53 0.0			23
	Dec20/23			Dec20/23	Dec20/23			Dec20/23
						:0	Makanzia 8 I	
Laboratory Sample No. Laboratory Sample No. Lab Number Unique Number To discuss this sample report, Test denoted (*) outside scope	: 02604864 [er : 5697949 [e : MOB 1 (Additional 7 c, contact Customer Servit	Recieved Diagnosed Diagnostic Tests: KV4 ice at 1-80	: 22 d : 22 cian : We 40, VI, Visus 0-268-213	Dec 2023 Dec 2023 s Davis al) 1.		SCO	5996 TO Contact: Se	Henderson Ltd WNSEND LINE FOREST, ON CA N0N 1J0 ervice Manager iehenderson.ca

Validity of results and interpretation are based on the sample and information as supplied.