

# **OIL ANALYSIS REPORT**



GLYCOL

# NOT GIVEN PCA0100902

Diesel Engine

PETRO CANADA DURON SHP 10W30 (--- QTS)

## DIAGNOSIS

### Recommendation

We advise that you check for the source of the coolant leak. Check for low coolant level. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

## Wear

All component wear rates are normal.

#### Contamination

Sodium and/or potassium levels are high.

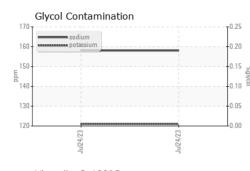
#### Fluid Condition

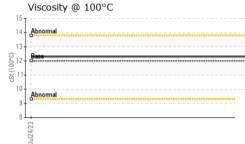
The BN result indicates that there is suitable alkalinity remaining in the oil.

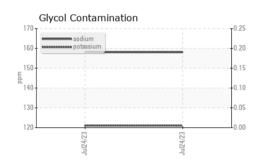
				Jul2023		
SAMPLE INFORM	<b>IATION</b>	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0100902		
Sample Date		Client Info		24 Jul 2023		
Machine Age	mls	Client Info		359350		
Oil Age	mls	Client Info		7252		
Oil Changed		Client Info		Changed		
Sample Status				ABNORMAL		
CONTAMINATI	ON	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0		
WEAR METALS	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	24		
Chromium	ppm	ASTM D5185m	>20	<1		
Nickel	ppm	ASTM D5185m	>4	0		
Titanium	ppm	ASTM D5185m		<1		
Silver	ppm	ASTM D5185m	>3	0		
Aluminum	ppm	ASTM D5185m	>20	5		
Lead	ppm	ASTM D5185m	>40	5		
Copper	ppm	ASTM D5185m	>330	4		
Tin	ppm	ASTM D5185m	>15	<1		
Vanadium	ppm	ASTM D5185m		<1		
Cadmium	ppm	ASTM D5185m		<1		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	6		
Barium	ppm	ASTM D5185m	0	1		
Molybdenum	ppm	ASTM D5185m	50	73		
Manganese	ppm	ASTM D5185m	0	1		
Magnesium	ppm	ASTM D5185m	950	993		
Calcium	ppm	ASTM D5185m	1050	1214		
Phosphorus	ppm	ASTM D5185m	995	1123		
Zinc	ppm	ASTM D5185m	1180	1361		
Sulfur	ppm	ASTM D5185m	2600	3777		
CONTAMINAN	TS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	7		
Sodium	ppm	ASTM D5185m		<u> </u>		
Potassium	ppm	ASTM D5185m	>20	<u> </u>		
Glycol	%	*ASTM D2982		NEG		
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	1.9		
Nitration	Abs/cm	*ASTM D7624		12.2		
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.2		
	ATION	method	limit/base	current	history1	history2
FLUID DEGRAD	ATION	methou	initia baoo	ourront	· · · · · · · · · · · · · · · · · · ·	
FLUID DEGRAD	ATION Abs/.1mm	*ASTM D7414	>25	18.3		



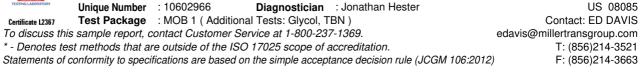
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VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE		
ellow Metal	scalar	*Visual	NONE	NONE		
Precipitate	scalar	*Visual	NONE	NONE		
Silt	scalar	*Visual	NONE	NONE		
Debris	scalar	*Visual	NONE	NONE		
Sand/Dirt	scalar	*Visual	NONE	NONE		
Appearance	scalar	*Visual	NORML	NORML		
Ddor	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
/isc @ 100°C	cSt	ASTM D445	12.00	12.3		
GRAPHS						
Iron (ppm)				Lead (ppm)		
Severe			100	Severe		
			- 80			
Abnormal			E 60	Abnormal		
- Q			40			*****************************
			20			
53			0 33			c c
Jul24/23			Jul24/23	Jul24/23		2 2 2 2
Aluminum (ppm)				Chromium (p	pm)	
Severe			50	Severe		
			40	1		
Abnormal			ق <sup>30</sup>	Abnormal		
- <b>Q</b>						*************************
			10			
4/23				Jui24/23		c E
Jul24/23			Jul24/23	Jul2		6 6 7
Copper (ppm)				Silicon (ppm)		
Severe			80			
Approximat			60			
			튭.40			
1			E 10	Abnormal		
•			20			
			- 0	1		
Jul24/23			Jul24/23	Jul24/23		2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
			Jr		_	-
Viscosity @ 100°C			10.0	Base Number	r 	
Abnormal			B/HO 8.0			
Base			Ē 6.0			
		*******************	e 4.0			
Abnormal			(b)H08 8.0 (b)H09 (b)H09 (b) (b)H09 (b)H09 (b) (b)H09 (b)H09 (b)H	+		
L.			0.0	L		
Jul24/23			Jul24/23	Jul24/23		
lu l			InL	InL		
NearCheck USA - 5	501 Madi	son Ave Ca	rv NC 27513	} N/	ILLER TRUCK I	FASING #11
	Received		Aug 2023		63 REPAUPO S	
	Diagnos		Aug 2023			OWNSHIP, N
	Diagnos		athan Hester			US 0808
MOB 1 (Additional					Con	tact: ED DAVI



Laboratory Sample No. Lab Number

Contact/Location: ED DAVIS - MILLOG

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