

NORMAL WEAR NORMAL CONTAMINATION **FLUID CONDITION ATTENTION**



KEMP QUARRIES / PRYOR STONE [70214]

omponen **Diesel Engine**

PETRO CANADA DURON SHP 15W40 (--- GAL)

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RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor. (Customer Sample Comment: Pm2 performed. All oil samples taken. Engine oil, transmission oil, and all filters changed.)	Sample Number		Client Info		PCA0108877	PCA0086331	PCA0084308
	Sample Date		Client Info		24 Jun 2024	19 Feb 2024	03 Nov 2023
	Machine Age	hrs	Client Info		15404	14934	14433
	Oil Age	hrs	Client Info		470	501	538
	Filter Age	hrs	Client Info		470	501	538
	Oil Changed		Client Info		Changed	Changed	Changed
	Filter Changed		Client Info		Changed	Changed	Changed
	Sample Status				ATTENTION	NORMAL	NORMAL
WEAR	Iron	ppm	ASTM D5185m	<100	42	22	17
WEAN	Chromium	ppm	ASTM D5185m		1	<1	<1
All component wear rates are normal.	Nickel	ppm	ASTM D5185m		- <1	<1	0
	Titanium	ppm	ASTM D5185m		1	0	<1
	Silver		ASTM D5185m		- <1	0	0
	Aluminum	ppm	ASTM D5185m		3	2	1
	Lead	ppm	ASTM D5185m		2	1	1
	Copper	ppm ppm	ASTM D5185m		2	<1	<1
	Tin	ppm	ASTM D5185m		 <1	<1	<1
	Vanadium	ppm	ASTM D5185m	>15	<1	0	0
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
		Scalai	visuai	NONL		NONL	NONL
CONTAMINATION	Silicon	ppm	ASTM D5185m	>25	6	5	5
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m	>20	3	<1	1
	Fuel		WC Method		<1.0	<1.0	<1.0
	Water		WC Method	>0.2	NEG	NEG	NEG
	Glycol		WC Method		NEG	NEG	NEG
	Soot %	%	*ASTM D7844	>3	0.9	0.6	0.6
	Nitration	Abs/cm	*ASTM D7624	>20	7.2	7.2	7.2
	Sulfation	Abs/.1mm	*ASTM D7415	>30	19.6	19.2	19.7
	Silt	scalar	*Visual	NONE	NONE	NONE	NONE
	Debris	scalar	*Visual	NONE	NONE	NONE	NONE
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
FLUID CONDITION	Sodium	ppm	ASTM D5185m		3	2	2
	Boron	ppm	ASTM D5185m	0	4	1	0
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.	Barium	ppm	ASTM D5185m		0	0	0
	Molybdenum	ppm	ASTM D5185m	60	80	66	62
	Manganese	ppm	ASTM D5185m	0	1	<1	<1
	Magnesium	ppm	ASTM D5185m	1010	— 1350	1047	982
	Calcium	ppm	ASTM D5185m	1070	1443	1180	1074
	Phosphorus	ppm	ASTM D5185m	1150	1463	1173	1066
	Zinc	ppm	ASTM D5185m	1270	1747	1332	1303
	Sulfur	ppm	ASTM D5185m	2060	4526	3641	3150
	Oxidation	Abs/.1mm	*ASTM D7414	>25	14.4	14.9	14.8
	Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.7	8.6	8.6
	Vier C 10000	- 01	AOTA DATE	4 - 4	40.0	10.1	10.0

Visc @ 100°C cSt

ASTM D445 15.4

13.2

13.3

13.1



To discuss this sample report, contact Customer Service at 1-800-237-1369. * - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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