

## **OIL ANALYSIS REPORT**

Sample Rating Trend





### Area **KEMP** QUARRIES / PRYOR [70967] **OHT129** Component **Diesel Engine**

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

SAMPLE INFO	RMATION	method	limit/base	current	history1	history
Sample Number		Client Info		PCA0108889	PCA0086660	
Sample Date		Client Info		22 Jun 2024	23 Apr 2024	
Machine Age	hrs	Client Info		15416	15042	
Oil Age	hrs	Client Info		374	0	
Oil Changed		Client Info		Changed	Changed	
Sample Status				NORMAL	NORMAL	
CONTAMINA	TION	method	limit/base	current	history1	history
Fuel		WC Method	>5	<1.0	<1.0	
Water		WC Method	>0.2	NEG	NEG	
Glycol		WC Method		NEG	NEG	
WEAR META	LS	method	limit/base	current	history1	history
Iron	ppm	ASTM D5185m	>100	17	16	
Chromium	ppm	ASTM D5185m	>20	<1	<1	
Nickel	ppm	ASTM D5185m	>2	<1	0	
Titanium	ppm	ASTM D5185m	>2	1	<1	
Silver	ppm	ASTM D5185m	>2	<1	0	
Aluminum	ppm	ASTM D5185m	>25	2	<1	
Lead	ppm	ASTM D5185m	>40	1	1	
Copper	ppm	ASTM D5185m	>330	3	2	
Tin	ppm	ASTM D5185m	>15	<1	<1	
Vanadium	ppm	ASTM D5185m		<1	<1	
Cadmium	ppm	ASTM D5185m		<1	0	
ADDITIVES		method	limit/base	current	history1	history
Boron	ppm	ASTM D5185m	0	3	<1	
Barium	ppm	ASTM D5185m	0	0	0	
Molybdenum	ppm	ASTM D5185m	60	64	60	
Manganese	ppm	ASTM D5185m	0	<1	<1	
Magnesium	ppm	ASTM D5185m	1010	990	417	
Calcium	ppm	ASTM D5185m	1070	1269	1907	
Phosphorus	ppm	ASTM D5185m	1150	1141	1097	
Zinc	ppm	ASTM D5185m	1270	1379	1257	
Sulfur	ppm	ASTM D5185m	2060	3482	3977	
CONTAMINA	NTS	method	limit/base	current	history1	history
Silicon	ppm	ASTM D5185m	>25	4	3	
Sodium	ppm	ASTM D5185m		2	3	
Potassium	ppm	ASTM D5185m	>20	2	<1	
INFRA-RED		method	limit/base	current	history1	history
Soot %	%	*ASTM D7844	>3	0.6	0.6	
Nitration	Abs/cm	*ASTM D7624	>20	5.7	5.6	
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.3	18.4	
FLUID DEGRA		method	limit/base	current	history1	history
	BATTON					,
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.2	13.3	

### DIAGNOSIS Recommendation

Resample at the next service interval to monitor. ( Customer Sample Comment: Pm1 performed. All oil samples taken. Engine oil, engine oil filters, fuel filters, air filters, and cabin air filters changed.)

#### Wear

All component wear rates are normal.

#### Contamination

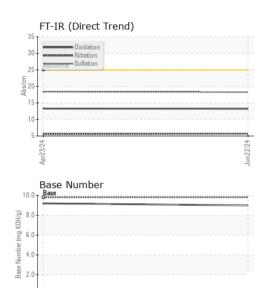
There is no indication of any contamination in the oil.

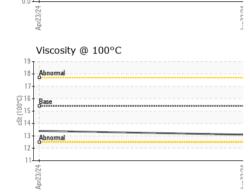
#### Fluid Condition

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



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VISUAL NONE White Metal \*Visual NONE NONE scalar Yellow Metal \*Visual NONE NONE NONE scalar NONE Precipitate scalar \*Visual NONE NONE Silt scalar \*Visual NONE NONE NONE Debris \*Visual NONE NONE NONE scalar Sand/Dirt NONE NONE NONE scalar \*Visual scalar NORML NORML Appearance \*Visual NORML Odor \*Visual NORML NORML scalar NORML **Emulsified Water** scalar \*Visual >0.2 NEG NEG Free Water scalar \*Visual NEG NEG **FLUID PROPERTIES** Visc @ 100°C cSt ASTM D445 15.4 13.1 13.4 GRAPHS Iron (ppm) Lead (ppm) 250 100 200 80 150 60 ppm 100 40 50 20 Aluminum (ppm) Chromium (ppm) 50 5 40 40 30 31 Copper (ppm) Silicon (ppm) 400 30 G la 200 ۲,40 100 20 Viscosity @ 100°C Base Number 20 10.0 (mg KOH/g) 18 8.0 6.0 mber ts ts 4.0 12 Base 10 0.0 Jun22/24 Apr/23/74 Jnr73/7 : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Kemp Quarries - Pryor Stone - Pryor : PCA0108889 Received : 08 Jul 2024 1050 E 520 Rd Lab Number : 06229714 Tested : 09 Jul 2024 Pryor, OK



Unique Number : 11113207 Diagnosed : 09 Jul 2024 - Sean Felton Test Package : MOB 1 (Additional Tests: TBN) Contact: PRYOR NOTIFICATIONS Certificate 12367 To discuss this sample report, contact Customer Service at 1-800-237-1369. pryor@pryorstone.com \* - 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)

Laboratory

Sample No.

US 74361