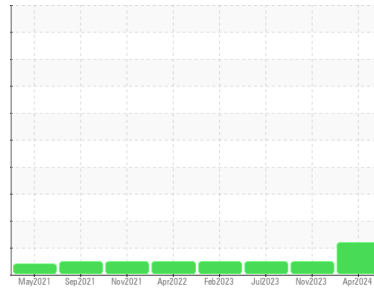


# OIL ANALYSIS REPORT



Area  
**KEMP QUARRIES / PRYOR STONE [68156]**  
 Machine Id  
**WL141**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

### Sample Rating Trend



**FUEL**



## DIAGNOSIS

### ● Recommendation

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. ( Customer Sample Comment: Pm4 performed. All oil samples taken. All oils, and all filters changed. )

### ● Wear

All component wear rates are normal.

### ▲ Contamination

Light fuel dilution occurring. No other contaminants were detected in the oil.

### ● Fluid Condition

Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			<b>PCA0086636</b>	PCA0084331	PCA0084558
Sample Date	Client Info			<b>06 Apr 2024</b>	18 Nov 2023	24 Jul 2023
Machine Age	hrs	Client Info		<b>26330</b>	25744	25250
Oil Age	hrs	Client Info		<b>586</b>	494	25250
Oil Changed	Client Info			<b>Changed</b>	Changed	Changed
Sample Status				<b>ATTENTION</b>	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water	WC Method	>0.2		<b>NEG</b>	NEG	NEG
Glycol	WC Method			<b>NEG</b>	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	<b>13</b>	17	13
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	<1
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>1</b>	<1	<1
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	2	<1
Copper	ppm	ASTM D5185m	>330	<b>2</b>	2	2
Tin	ppm	ASTM D5185m	>15	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	<b>2</b>	0	<1
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>59</b>	57	55
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185m	1010	<b>1017</b>	934	944
Calcium	ppm	ASTM D5185m	1070	<b>1105</b>	1063	1032
Phosphorus	ppm	ASTM D5185m	1150	<b>1127</b>	1035	1016
Zinc	ppm	ASTM D5185m	1270	<b>1320</b>	1248	1242
Sulfur	ppm	ASTM D5185m	2060	<b>3741</b>	3079	3632

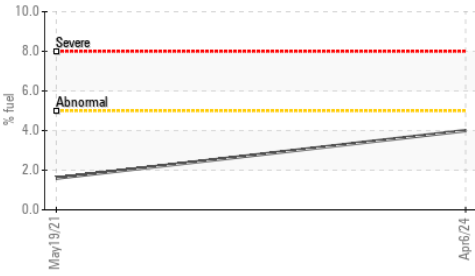
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<b>2</b>	5	2
Sodium	ppm	ASTM D5185m		<b>&lt;1</b>	3	1
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	<1	2
Fuel	%	ASTM D3524	>5	<b>▲ 4.0</b>	<1.0	<1.0

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	<b>0.3</b>	0.3	0.3
Nitration	Abs/cm	*ASTM D7624	>20	<b>6.8</b>	6.4	6.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>18.6</b>	18.3	18.3

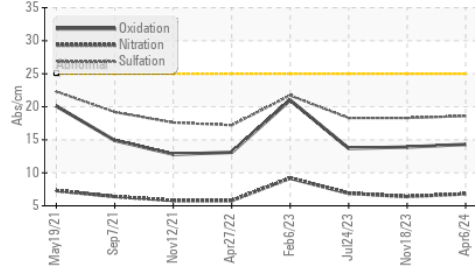
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>14.3</b>	13.9	13.7
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>8.7</b>	8.6	8.6

# OIL ANALYSIS REPORT

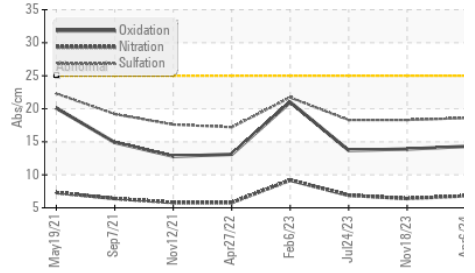
## Fuel Dilution



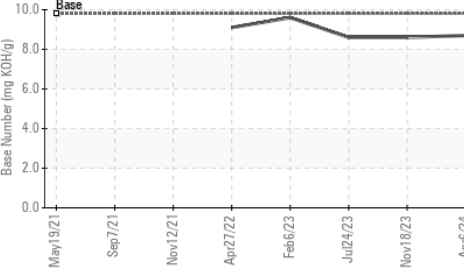
## FT-IR (Direct Trend)



## FT-IR (Direct Trend)



## Base Number



## VISUAL

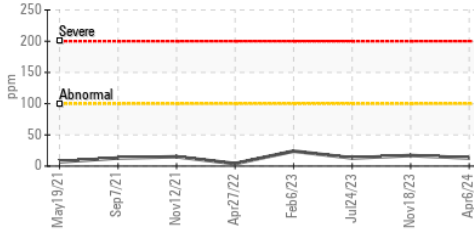
	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

## FLUID PROPERTIES

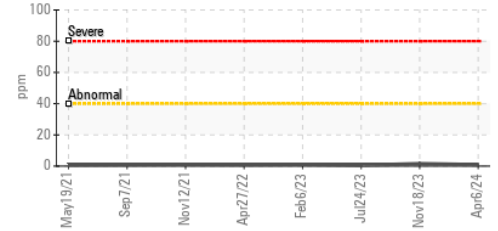
	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	12.3	12.8

## GRAPHS

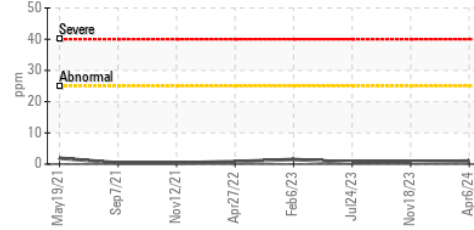
### Iron (ppm)



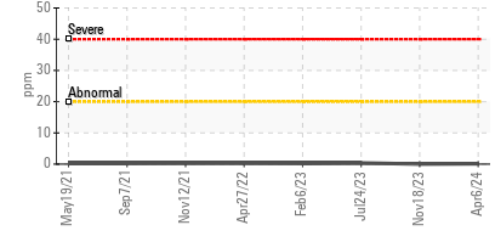
### Lead (ppm)



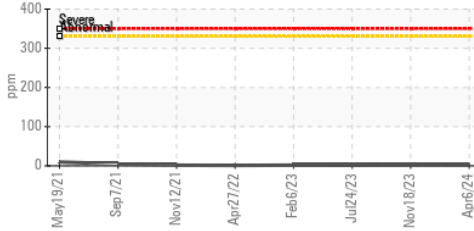
### Aluminum (ppm)



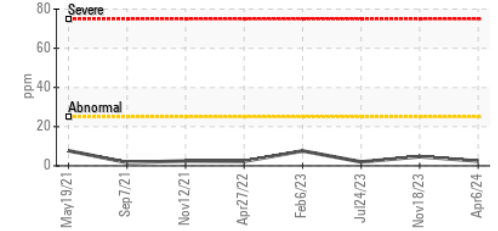
### Chromium (ppm)



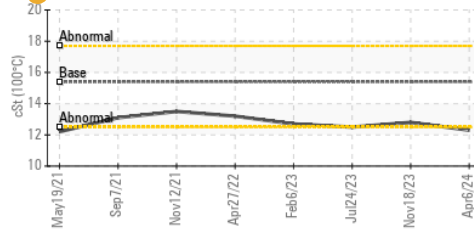
### Copper (ppm)



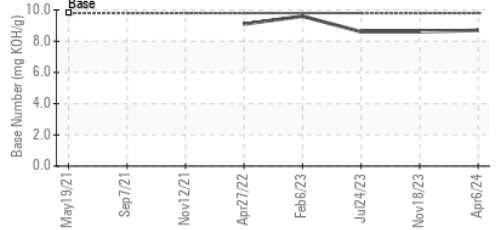
### Silicon (ppm)



### Viscosity @ 100°C



### Base Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0086636 **Received** : 15 Apr 2024  
**Lab Number** : 06149297 **Tested** : 19 Apr 2024  
**Unique Number** : 10979375 **Diagnosed** : 19 Apr 2024 - Don Baldrige  
**Test Package** : MOB 1 ( Additional Tests: FuelDilution, PercentFuel, TBN )

**Kemp Quarries - Pryor Stone - Pryor**  
 1050 E 520 Rd  
 Pryor, OK  
 US 74361  
 Contact: PRYOR NOTIFICATIONS  
 pryor@pryorstone.com

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)