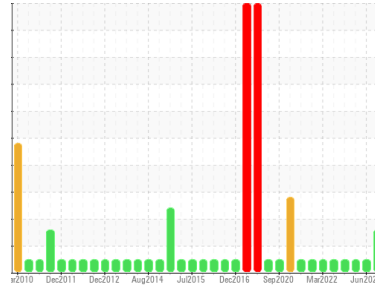


OIL ANALYSIS REPORT



Area
KEMP QUARRIES / KEMP STONE - FAIRLAND [66087]
Machine Id
WL071
Component
Rear Right Final Drive
Fluid
PETRO CANADA PRODURO TO-4 SAE 50 (--- GAL)

Sample Rating Trend



WATER



DIAGNOSIS

Recommendation

We advise that you check for the source of water entry. We recommend an early resample to monitor this condition. (Customer Sample Comment: PM-3 sampled fluid)

Wear

All component wear rates are normal.

Contamination

There is a moderate concentration of water present in the oil.

Fluid Condition

The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		PCA0086234	PCA0086329	PCA0086055
Sample Date	Client Info		06 Dec 2023	20 Jun 2023	06 Apr 2023
Machine Age	hrs	Client Info	32462	32119	31788
Oil Age	hrs	Client Info	32462	32119	31788
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			ABNORMAL	NORMAL	NORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >800	61	57	25
Chromium	ppm	ASTM D5185m >10	0	0	<1
Nickel	ppm	ASTM D5185m >5	0	0	0
Titanium	ppm	ASTM D5185m >15	0	<1	0
Silver	ppm	ASTM D5185m >2	0	0	0
Aluminum	ppm	ASTM D5185m >75	1	<1	1
Lead	ppm	ASTM D5185m >10	0	0	0
Copper	ppm	ASTM D5185m >75	14	12	5
Tin	ppm	ASTM D5185m >8	0	0	0
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 2	4	0	0
Barium	ppm	ASTM D5185m 0	0	15	0
Molybdenum	ppm	ASTM D5185m 0	1	<1	<1
Manganese	ppm	ASTM D5185m 0	<1	<1	<1
Magnesium	ppm	ASTM D5185m 9	16	31	19
Calcium	ppm	ASTM D5185m 3114	3083	3047	3024
Phosphorus	ppm	ASTM D5185m 1099	939	1081	1015
Zinc	ppm	ASTM D5185m 1245	1192	1377	1267
Sulfur	ppm	ASTM D5185m 7086	4983	6107	5973

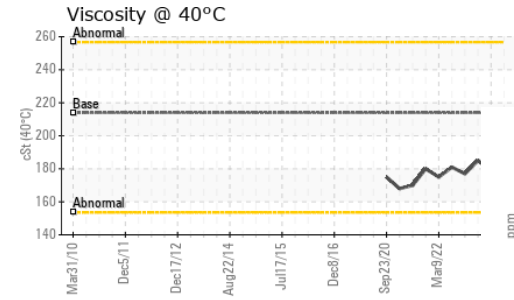
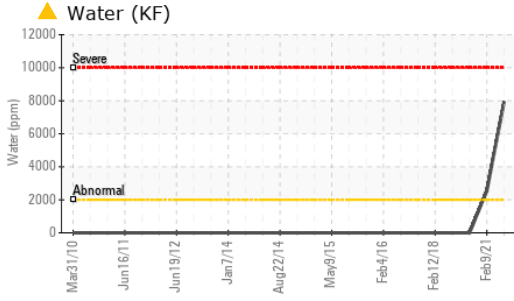
CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >400	21	15	9
Sodium	ppm	ASTM D5185m	0	<1	<1
Potassium	ppm	ASTM D5185m >20	2	0	0
Water	%	ASTM D6304 >0.2	▲ 0.794	---	---
ppm Water	ppm	ASTM D6304 >2000	▲ 7940	---	---

VISUAL

	method	limit/base	current	history1	history2
White Metal	scalar	*Visual NONE	NONE	MODER	MODER
Yellow Metal	scalar	*Visual NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual NONE	NONE	NONE	NONE
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	▲ 0.2%	NEG	NEG
Free Water	scalar	*Visual	NEG	NEG	NEG

OIL ANALYSIS REPORT



FLUID PROPERTIES method limit/base current history1 history2

Visc @ 40°C cSt ASTM D445 213.9 **181** 179 185

SAMPLE IMAGES method limit/base current history1 history2

Color



no image

no image

Bottom

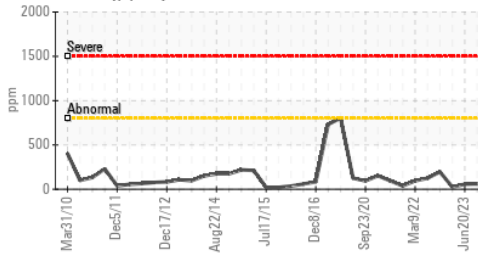


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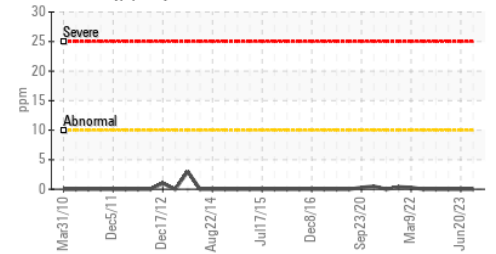
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GRAPHS

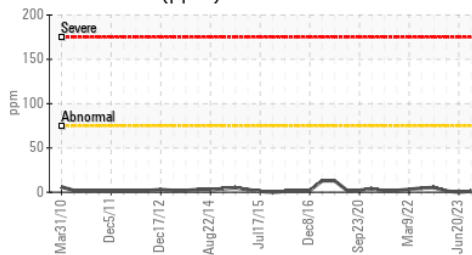
Iron (ppm)



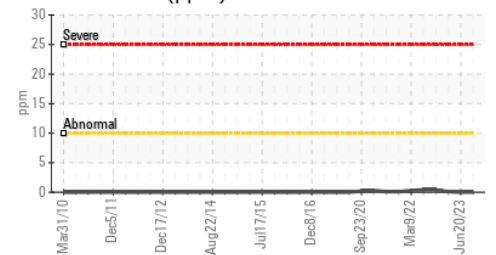
Lead (ppm)



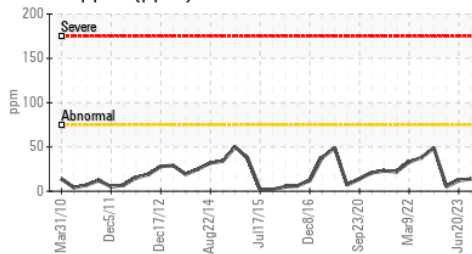
Aluminum (ppm)



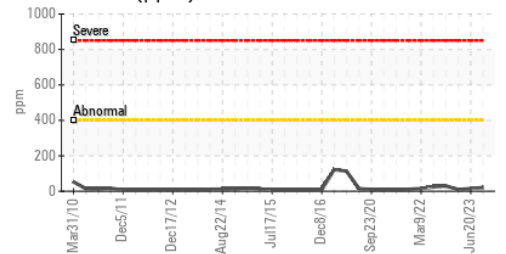
Chromium (ppm)



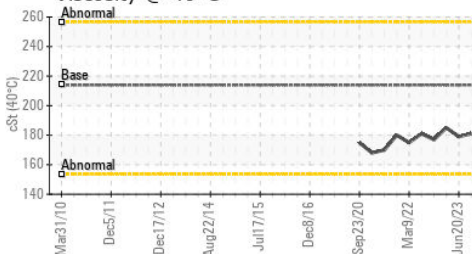
Copper (ppm)



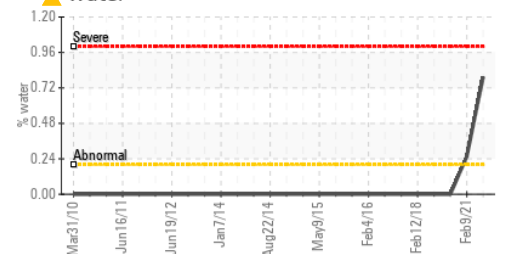
Silicon (ppm)



Viscosity @ 40°C



▲ Water



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0086234 **Recieved** : 13 Dec 2023
Lab Number : 06034198 **Diagnosed** : 18 Dec 2023
Unique Number : 10789427 **Diagnostician** : Sean Felton
Test Package : MOB 1 (Additional Tests: KF)

Kemp Quarries - Kemp Stone - Fairland
 18350 S 590 Rd
 Fairland, OK
 US 74343
 Contact:
 fairland@kempstone.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)

T:
F: