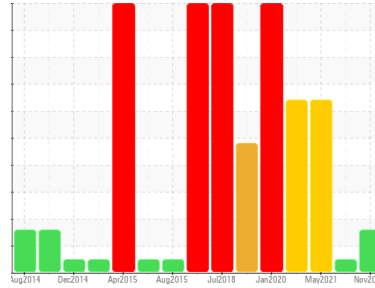


OIL ANALYSIS REPORT



Area
KEMP QUARRIES / BCS - MILL CREEK [68018]
Machine Id
WL087
Component
Rear Right Final Drive
Fluid
PETRO CANADA PRODURO TO-4 SAE 50 (--- GAL)

Sample Rating Trend



WATER



DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor. (Customer Sample Comment: PM-2 sampled fluid)

Wear

All component wear rates are normal.

Contamination

There is a light 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		PCA0070611	PCA0048566	PCA0037965
Sample Date	Client Info		29 Nov 2023	25 Oct 2021	19 May 2021
Machine Age	hrs	Client Info	16002	15752	15377
Oil Age	hrs	Client Info	16002	0	0
Oil Changed	Client Info		N/A	Not Changd	Changed
Sample Status			ABNORMAL	NORMAL	SEVERE

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >800	130	66	▲ 804
Chromium	ppm	ASTM D5185m >10	0	<1	1
Nickel	ppm	ASTM D5185m >5	0	0	<1
Titanium	ppm	ASTM D5185m >15	<1	<1	2
Silver	ppm	ASTM D5185m >2	0	0	<1
Aluminum	ppm	ASTM D5185m >75	4	3	▲ 33
Lead	ppm	ASTM D5185m >10	<1	0	1
Copper	ppm	ASTM D5185m >75	6	3	30
Tin	ppm	ASTM D5185m >8	0	0	1
Antimony	ppm	ASTM D5185m >50	---	0	<1
Vanadium	ppm	ASTM D5185m	0	0	<1
Cadmium	ppm	ASTM D5185m	0	<1	<1

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 2	6	10	11
Barium	ppm	ASTM D5185m 0	0	0	0
Molybdenum	ppm	ASTM D5185m 0	<1	0	1
Manganese	ppm	ASTM D5185m 0	1	<1	8
Magnesium	ppm	ASTM D5185m 9	21	17	38
Calcium	ppm	ASTM D5185m 3114	2834	3058	3110
Phosphorus	ppm	ASTM D5185m 1099	1073	948	1089
Zinc	ppm	ASTM D5185m 1245	1265	1121	1296
Sulfur	ppm	ASTM D5185m 7086	9783	12580	9332

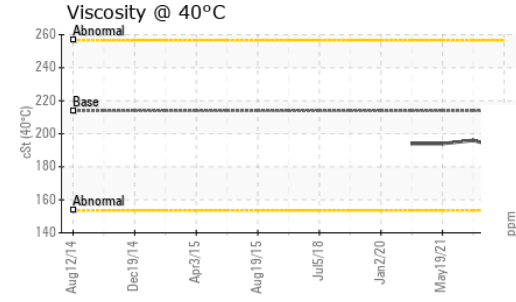
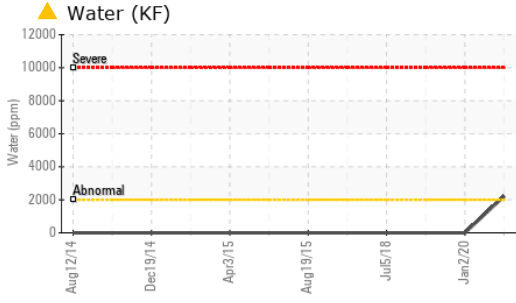
CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >400	48	30	● 337
Sodium	ppm	ASTM D5185m	<1	1	12
Potassium	ppm	ASTM D5185m >20	0	6	6
Water	%	ASTM D6304 >0.2	▲ 0.222	---	---
ppm Water	ppm	ASTM D6304 >2000	▲ 2220	---	---

VISUAL

	method	limit/base	current	history1	history2
White Metal	scalar	*Visual NONE	NONE	NONE	NONE
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

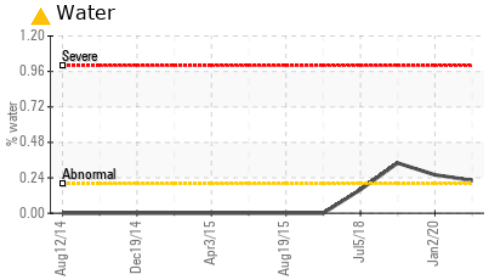
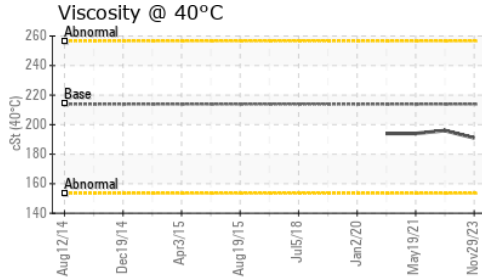
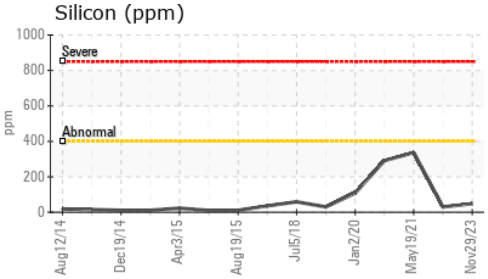
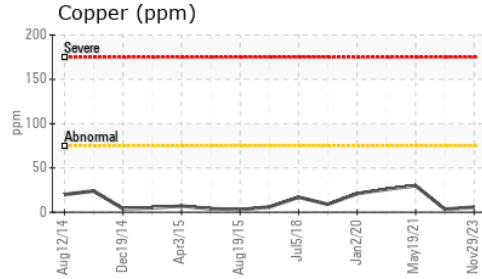
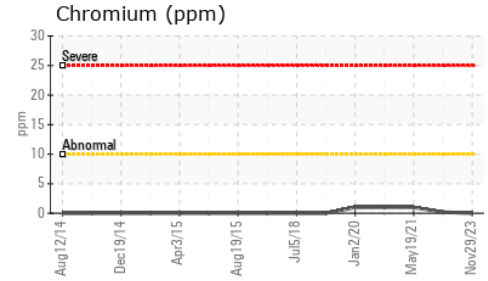
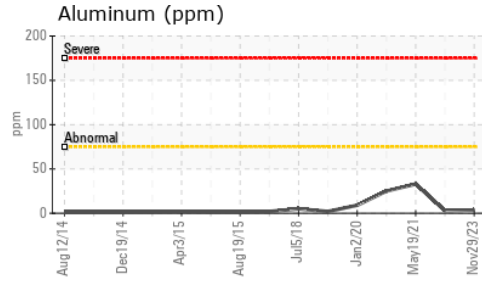
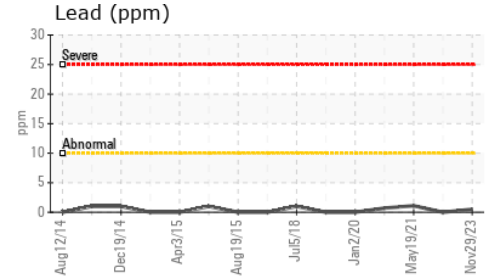
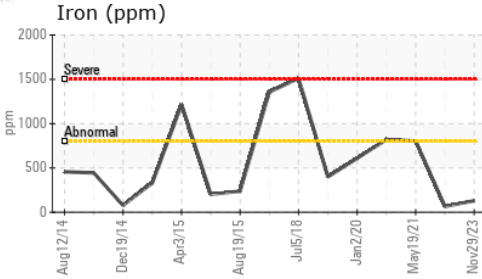


FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 213.9	191	196	194

SAMPLE IMAGES	method	limit/base	current	history1	history2
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Color	no image	no image	no image
Bottom	no image	no image	no image

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0070611 **Received** : 12 Dec 2023
Lab Number : 06032944 **Diagnosed** : 15 Dec 2023
Unique Number : 10782735 **Diagnostician** : Sean Felton
Test Package : MOB 1 (Additional Tests: KF)

Kemp Quarries - BCS-Mill Creek
 609 Lazy E Rd
 Noel, MO
 US 64854
 Contact: TRAVIS ELLIS
 tellis@kempquarries.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: