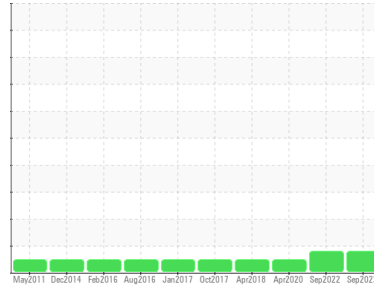


OIL ANALYSIS REPORT



Area
KEMP QUARRIES / BCS - GRAVETTE
Machine Id
TTT003
Component
Transmission (Manual)
Fluid
PETRO CANADA PRODURO TO-4 SAE 30 (--- GAL)

Sample Rating Trend



WEAR



DIAGNOSIS

Recommendation
No corrective action is recommended at this time. Resample at the next service interval to monitor. (Customer Sample Comment: Metal and rubber in the filters. Overheating.)

Wear
Gear wear is indicated.

Contamination
There is no indication of any contamination in the fluid.

Fluid Condition
The condition of the fluid is acceptable for the time in service.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	PCA0037695	PCA0062341	PCA0014413
Sample Date	Client Info	15 Sep 2023	23 Sep 2022	09 Apr 2020
Machine Age	hrs	15838	15416	13889
Oil Age	hrs	0	15416	0
Oil Changed	Client Info	Not Chngd	Changed	N/A
Sample Status		ABNORMAL	ABNORMAL	NORMAL

WEAR METALS

method	limit/base	current	history1	history2
Iron ppm	ASTM D5185m >200	▲ 238	▲ 349	30
Chromium ppm	ASTM D5185m >5	<1	<1	<1
Nickel ppm	ASTM D5185m >5	0	0	<1
Titanium ppm	ASTM D5185m	0	0	<1
Silver ppm	ASTM D5185m >7	0	0	0
Aluminum ppm	ASTM D5185m >25	<1	2	2
Lead ppm	ASTM D5185m >45	1	1	3
Copper ppm	ASTM D5185m >225	83	159	14
Tin ppm	ASTM D5185m >10	<1	<1	0
Antimony ppm	ASTM D5185m	---	---	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	3	0	11
Barium ppm	ASTM D5185m 0	<1	0	0
Molybdenum ppm	ASTM D5185m 0	2	5	13
Manganese ppm	ASTM D5185m 9	2	3	<1
Magnesium ppm	ASTM D5185m 1	43	79	202
Calcium ppm	ASTM D5185m 3131	2888	2824	2671
Phosphorus ppm	ASTM D5185m 1194	1000	970	965
Zinc ppm	ASTM D5185m 1281	1171	1085	1146
Sulfur ppm	ASTM D5185m 3811	4894	5243	7192

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon ppm	ASTM D5185m >125	7	6	5
Sodium ppm	ASTM D5185m	3	0	1
Potassium ppm	ASTM D5185m >20	0	0	9

FLUID DEGRADATION

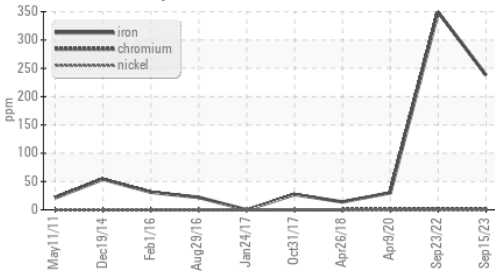
method	limit/base	current	history1	history2
Oxidation Abs/.1mm	*ASTM D7414	---	---	---

VISUAL

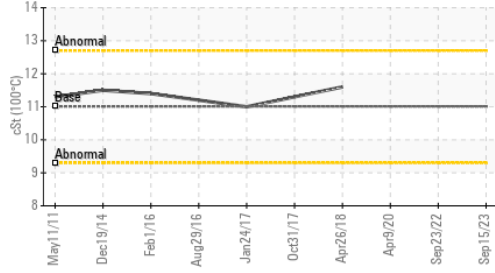
method	limit/base	current	history1	history2
White Metal scalar	*Visual NONE	NONE	NONE	NONE
Yellow Metal scalar	*Visual NONE	NONE	NONE	NONE
Precipitate scalar	*Visual NONE	NONE	NONE	NONE
Silt scalar	*Visual NONE	NONE	NONE	NONE
Debris scalar	*Visual NONE	NONE	NONE	NONE
Sand/Dirt scalar	*Visual NONE	NONE	NONE	NONE
Appearance scalar	*Visual NORML	NORML	NORML	NORML
Odor scalar	*Visual NORML	NORML	NORML	NORML
Emulsified Water scalar	*Visual >0.1	NEG	NEG	NEG
Free Water scalar	*Visual	NEG	NEG	NEG

OIL ANALYSIS REPORT

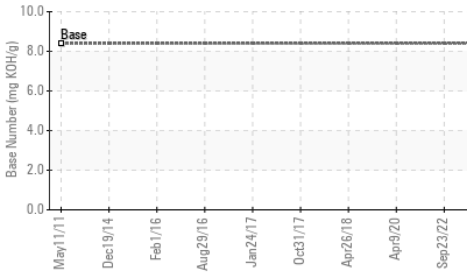
▲ Ferrous Alloys



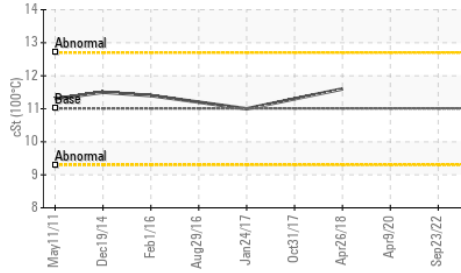
Viscosity @ 100°C



Base Number



Viscosity @ 100°C



FLUID PROPERTIES

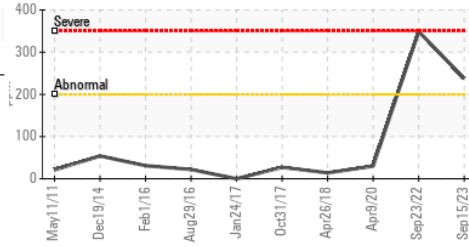
method	limit/base	current	history1	history2
Visc @ 40°C	cSt ASTM D445	88.5	86.79	87.0
Visc @ 100°C	cSt ASTM D445	11.01	---	---

SAMPLE IMAGES

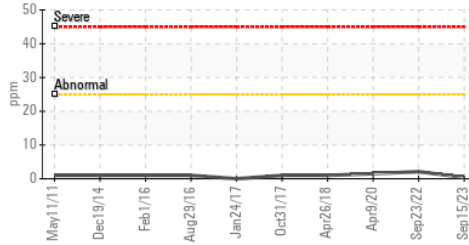
method	limit/base	current	history1	history2
Color			no image	no image
Bottom			no image	no image

GRAPHS

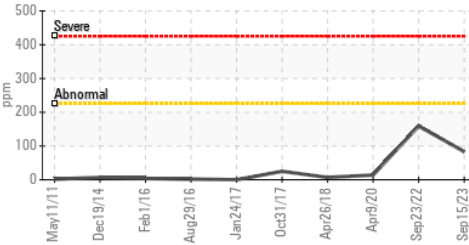
▲ Iron (ppm)



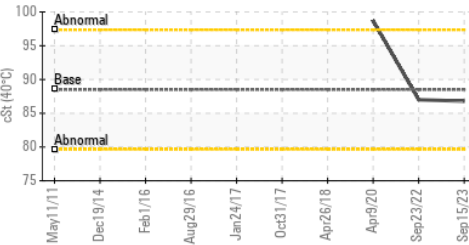
Aluminum (ppm)



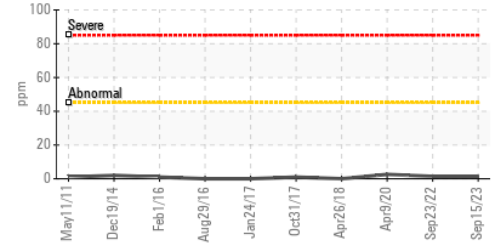
Copper (ppm)



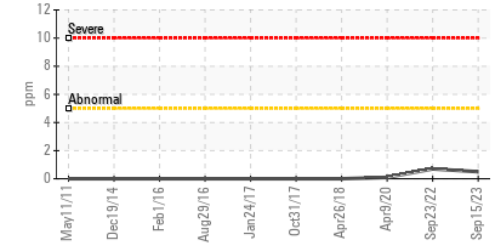
Viscosity @ 40°C



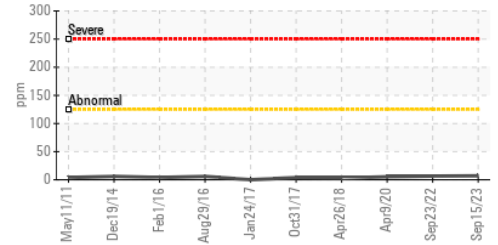
Lead (ppm)



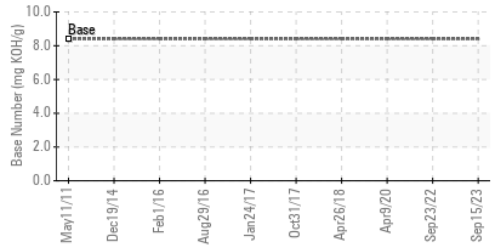
Chromium (ppm)



Silicon (ppm)



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0037695
Lab Number : 05954661
Unique Number : 10655874
Test Package : MOB 1 (Additional Tests: FT-IR, KV100, TBN)

Kemp Quarries - Benton County Stone - Gravette
 15100 N Hwy 59
 Sulphur Springs, AR
 US 72768
 Contact:
 gravette@bentoncountystone.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: