

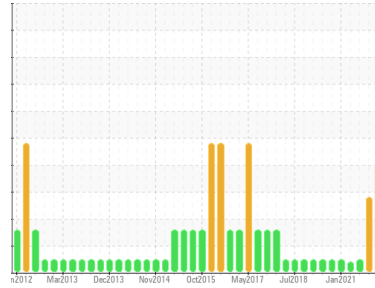


OIL ANALYSIS REPORT



Area
KEMP QUARRIES / BCS - STILLWELL
 Machine Id
WL068
 Component
Hydraulic System
 Fluid
PETRO CANADA HYDREX AW 68 (--- GAL)

Sample Rating Trend



WEAR



DIAGNOSIS

Recommendation

No corrective action is recommended at this time. We recommend an early resample to monitor this condition. (Customer Sample Comment: PM-3 changed filters (fluid is duron shp 15w40))

Wear

The iron level is abnormal. The aluminum level is abnormal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The oil viscosity is higher than normal. Additive levels indicate the addition of a different brand, or type of oil.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		PCA0086438	PCA0086168	PCA0037990
Sample Date	Client Info		05 Jul 2023	04 Mar 2023	18 Oct 2021
Machine Age	hrs	Client Info	23571	23003	21950
Oil Age	hrs	Client Info	21380	20812	0
Oil Changed	Client Info		N/A	Not Changd	Not Changd
Sample Status			ABNORMAL	ATTENTION	NORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >20	▲ 33	8	4
Chromium	ppm	ASTM D5185m >10	<1	2	<1
Nickel	ppm	ASTM D5185m >10	<1	0	0
Titanium	ppm	ASTM D5185m	<1	0	<1
Silver	ppm	ASTM D5185m	0	0	0
Aluminum	ppm	ASTM D5185m >10	▲ 10	2	<1
Lead	ppm	ASTM D5185m >10	0	0	<1
Copper	ppm	ASTM D5185m >75	38	2	<1
Tin	ppm	ASTM D5185m >10	<1	0	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 0	2	2	1
Barium	ppm	ASTM D5185m 0	0	0	0
Molybdenum	ppm	ASTM D5185m 0	3	▲ 46	1
Manganese	ppm	ASTM D5185m 0	<1	<1	0
Magnesium	ppm	ASTM D5185m 0	▲ 37	▲ 768	12
Calcium	ppm	ASTM D5185m 50	▲ 2545	▲ 886	94
Phosphorus	ppm	ASTM D5185m 330	▲ 920	▲ 902	336
Zinc	ppm	ASTM D5185m 430	▲ 1119	▲ 1062	424
Sulfur	ppm	ASTM D5185m 760	▲ 4454	▲ 3245	842

CONTAMINANTS

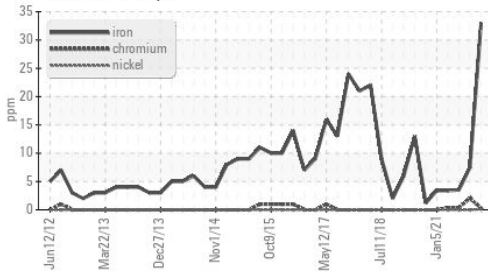
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >20	8	8	2
Sodium	ppm	ASTM D5185m	1	2	0
Potassium	ppm	ASTM D5185m >20	2	<1	0

VISUAL

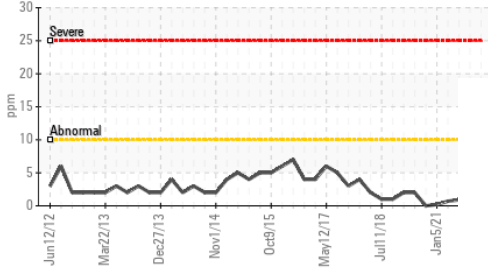
	method	limit/base	current	history1	history2
White Metal	scalar	*Visual NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual NONE	NONE	NONE	NONE
Silt	scalar	*Visual NONE	LIGHT	NONE	NONE
Debris	scalar	*Visual NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual NONE	NONE	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

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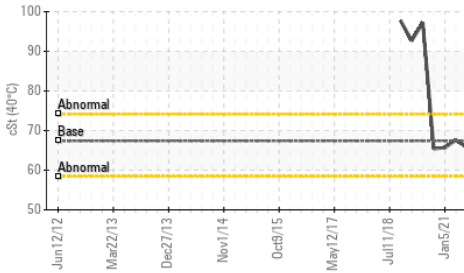
▲ Ferrous Alloys



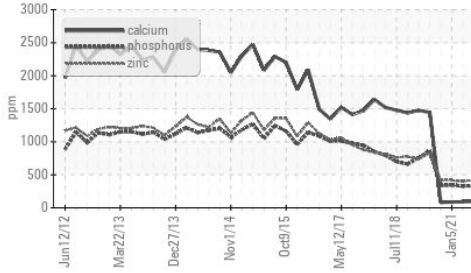
▲ Aluminum (ppm)



▲ Viscosity @ 40°C



▲ Additives



FLUID PROPERTIES

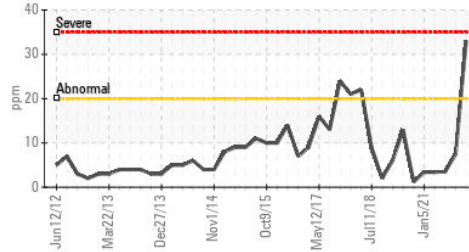
method	limit/base	current	history1	history2
Visc @ 40°C	cSt ASTM D445	67.4 ▲ 88.1	▲ 81.4	65.8

SAMPLE IMAGES

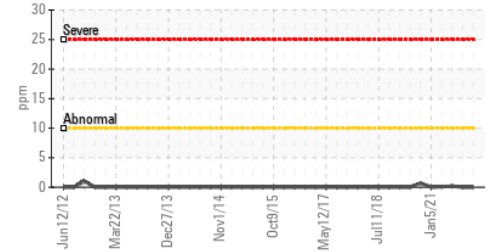
method	limit/base	current	history1	history2
Color			no image	no image
Bottom			no image	no image

GRAPHS

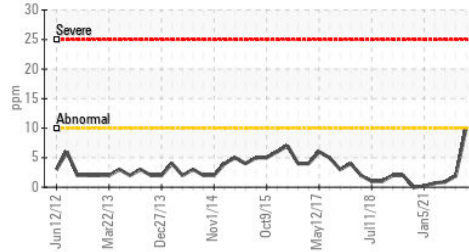
▲ Iron (ppm)



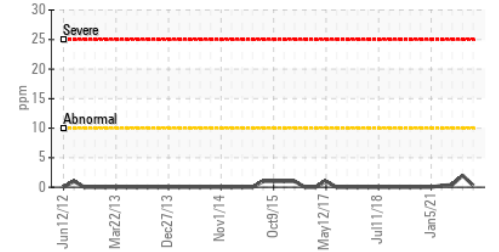
▲ Lead (ppm)



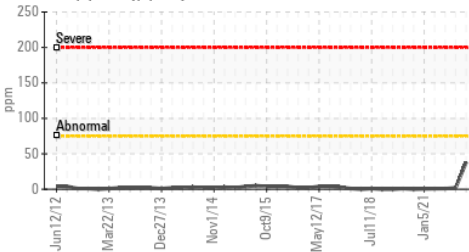
▲ Aluminum (ppm)



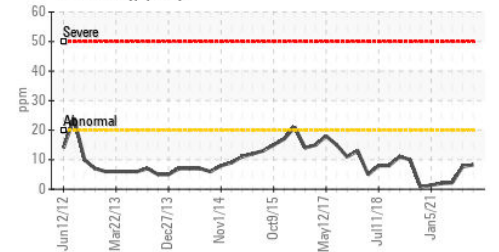
▲ Chromium (ppm)



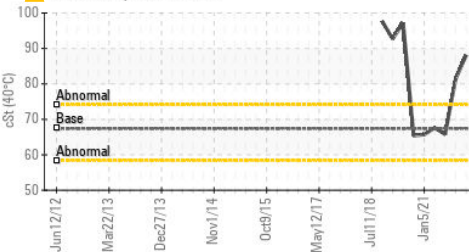
▲ Copper (ppm)



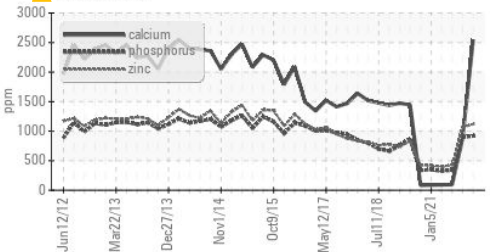
▲ Silicon (ppm)



▲ Viscosity @ 40°C



▲ Additives



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0086438 **Received** : 10 Jul 2023
Lab Number : 05894732 **Diagnosed** : 12 Jul 2023
Unique Number : 10550542 **Diagnostician** : Jonathan Hester
Test Package : MOB 1

Kemp Quarries - Benton County Stone - Stillwell
 463917 Highway 100
 Bunch, OK
 US 74931
 Contact:

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)

stilwell@bentoncountystone.com

T:

F: