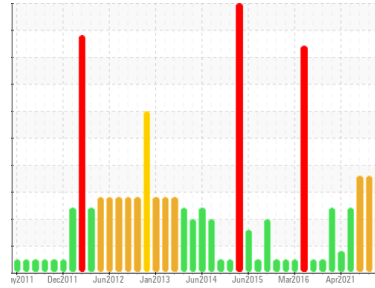


OIL ANALYSIS REPORT



Area
KEMP QUARRIES / PRYOR STONE
Machine Id
WLO49
Component
Diesel Engine
Fluid
MOBIL DELVAC 1300 SUPER15W40 (--- GAL)

Sample Rating Trend



DIAGNOSIS

Recommendation
We advise that you check for faulty combustion, plugged air filters, or aftercoolers. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. NOTE: High solids (carbon/soot) in the sample have limited the accuracy of Infra-Red data including Total Base Number (TBN) value.

Wear
All component wear rates are normal.

Contamination
There is an abnormal amount of solids and carbon present in the oil.

Fluid Condition
The oil viscosity is higher than normal. The BN level is low.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	PCA0062647	PCA0062673	PCA0038247
Sample Date	Client Info	24 Sep 2022	20 Jun 2022	09 Feb 2022
Machine Age	hrs	2980	1112	690
Oil Age	hrs	2980	263674	690
Oil Changed	Client Info	Changed	Changed	Changed
Sample Status		SEVERE	SEVERE	SEVERE

CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >5	<1.0	<1.0	<1.0
Glycol	WC Method	NEG	NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >85	41	54	38
Chromium	ppm ASTM D5185m >4	1	1	1
Nickel	ppm ASTM D5185m >4	0	1	<1
Titanium	ppm ASTM D5185m	0	<1	<1
Silver	ppm ASTM D5185m	0	0	0
Aluminum	ppm ASTM D5185m >11	2	2	3
Lead	ppm ASTM D5185m >30	6	11	5
Copper	ppm ASTM D5185m >135	11	24	9
Tin	ppm ASTM D5185m >4	1	2	<1
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	1	4	2
Barium	ppm ASTM D5185m 0	0	0	0
Molybdenum	ppm ASTM D5185m 0	63	62	64
Manganese	ppm ASTM D5185m	<1	<1	<1
Magnesium	ppm ASTM D5185m 0	955	913	984
Calcium	ppm ASTM D5185m	1155	1190	1128
Phosphorus	ppm ASTM D5185m	1035	934	1063
Zinc	ppm ASTM D5185m	1234	1200	1252
Sulfur	ppm ASTM D5185m	3388	2858	2778

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >20	5	5	4
Sodium	ppm ASTM D5185m	4	16	17
Potassium	ppm ASTM D5185m >20	2	2	<1

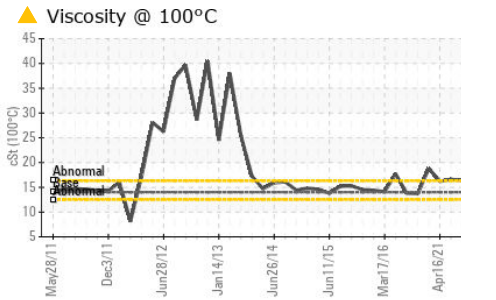
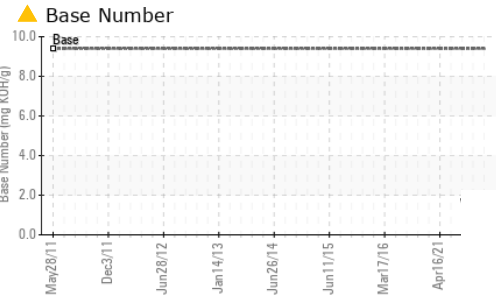
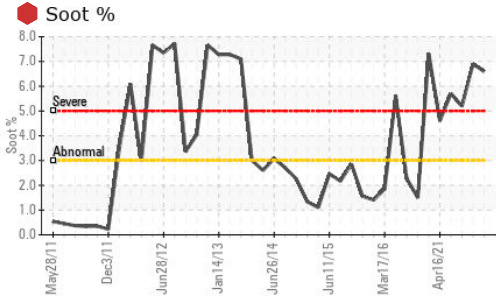
INFRA-RED

method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	6.6	6.9	5.2
Nitration	Abs/cm *ASTM D7624 >20	13.3	17.2	11.7
Sulfation	Abs/.1mm *ASTM D7415 >30	33.5	35.9	30.0

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	20.1	22.0	17.3
Base Number (BN)	mg KOH/g ASTM D2896 9.4	0.0	0.0	1.8

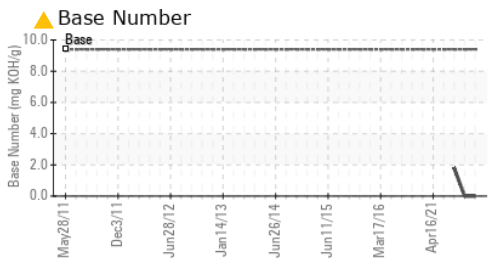
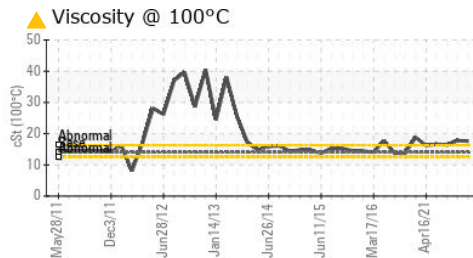
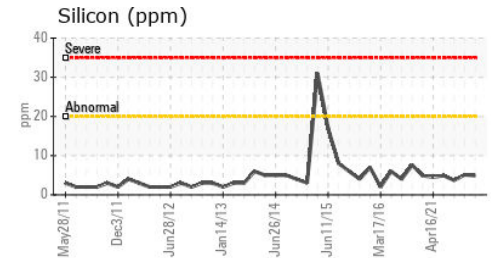
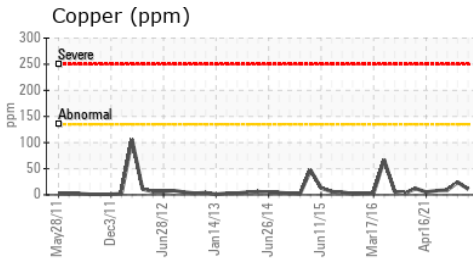
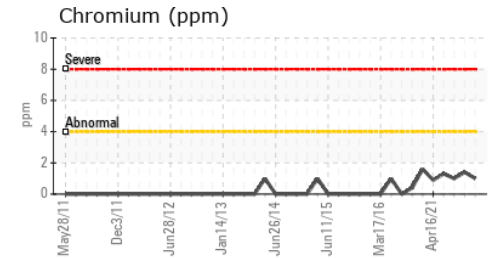
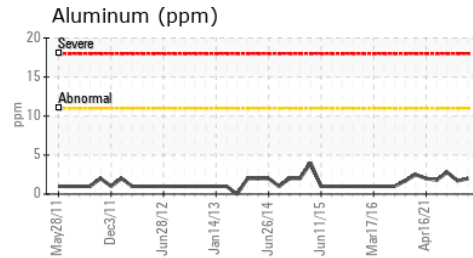
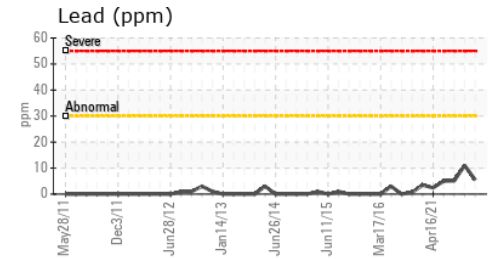
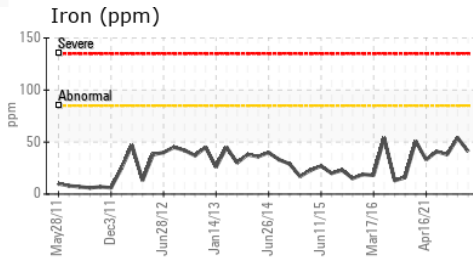
OIL ANALYSIS REPORT



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 14	▲ 17.6	▲ 17.8	▲ 16.4

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0062647 **Received** : 03 Oct 2022
Lab Number : 05656681 **Diagnosed** : 05 Oct 2022
Unique Number : 10156233 **Diagnostician** : Don Baldrige
Test Package : MOB 1 (Additional Tests: TBN)

Kemp Quarries - Pryor Stone - Pryor
 1050 E 520 Rd
 Pryor, OK
 US 74361
 Contact:
 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)

T:
F: