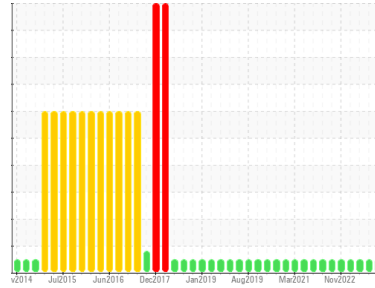


# OIL ANALYSIS REPORT



Area  
**KEMP QUARRIES / RIVER VALLEY BACKBONE**  
Machine Id  
**WL088**  
Component  
**Diesel Engine**  
Fluid  
**MOBIL DELVAC 1300 SUPER15W40 (--- GAL)**

Sample Rating Trend



**NORMAL**



## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil.

### Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>PCA0069716</b>	PCA0084831	PCA0084893
Sample Date	Client Info	<b>30 Jan 2024</b>	10 Nov 2023	02 Oct 2023
Machine Age	hrs	<b>43499</b>	6716	36443
Oil Age	hrs	<b>300</b>	300	320
Oil Changed	Client Info	<b>Changed</b>	Changed	Changed
Sample Status		<b>NORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >5	<b>&lt;1.0</b>	<1.0	<1.0
Water	WC Method >0.2	<b>NEG</b>	NEG	NEG
Glycol	WC Method	<b>NEG</b>	NEG	NEG

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >100	<b>24</b>	7	15
Chromium	ppm ASTM D5185m >20	<b>&lt;1</b>	<1	0
Nickel	ppm ASTM D5185m >2	<b>1</b>	0	0
Titanium	ppm ASTM D5185m >2	<b>&lt;1</b>	<1	0
Silver	ppm ASTM D5185m >2	<b>&lt;1</b>	0	0
Aluminum	ppm ASTM D5185m >25	<b>5</b>	<1	<1
Lead	ppm ASTM D5185m >40	<b>2</b>	1	<1
Copper	ppm ASTM D5185m >330	<b>2</b>	2	2
Tin	ppm ASTM D5185m >15	<b>&lt;1</b>	0	0
Vanadium	ppm ASTM D5185m	<b>&lt;1</b>	0	0
Cadmium	ppm ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	<b>0</b>	0	<1
Barium	ppm ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m 0	<b>56</b>	56	58
Manganese	ppm ASTM D5185m	<b>&lt;1</b>	0	0
Magnesium	ppm ASTM D5185m 0	<b>877</b>	946	945
Calcium	ppm ASTM D5185m	<b>1001</b>	1037	988
Phosphorus	ppm ASTM D5185m	<b>990</b>	940	954
Zinc	ppm ASTM D5185m	<b>1191</b>	1213	1203
Sulfur	ppm ASTM D5185m	<b>3004</b>	3018	2914

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>13</b>	2	3
Sodium	ppm ASTM D5185m	<b>2</b>	2	1
Potassium	ppm ASTM D5185m >20	<b>4</b>	<1	<1

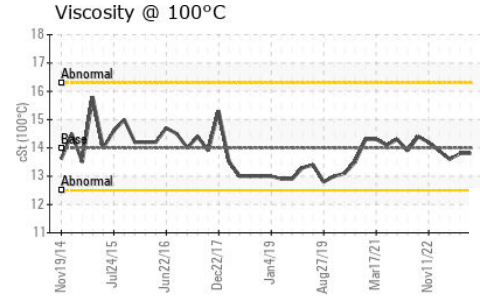
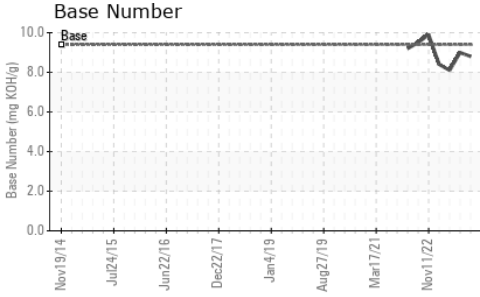
## INFRA-RED

method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>0.2</b>	0.2	0.3
Nitration	Abs/cm *ASTM D7624 >20	<b>5.8</b>	5.5	5.7
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>18.1</b>	17.8	17.6

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>13.6</b>	13.6	13.2
Base Number (BN)	mg KOH/g ASTM D2896 9.4	<b>8.8</b>	9.0	8.1

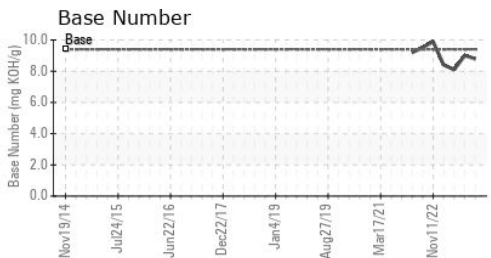
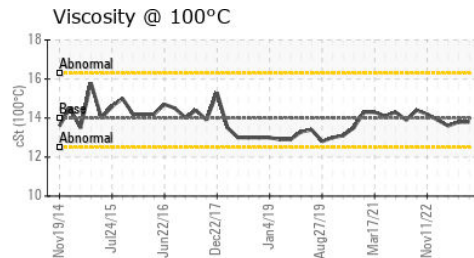
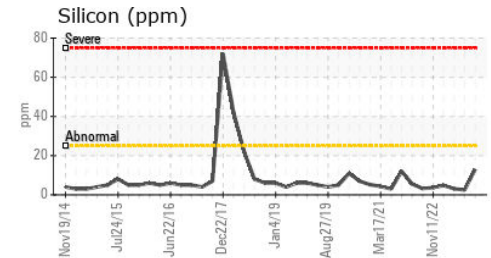
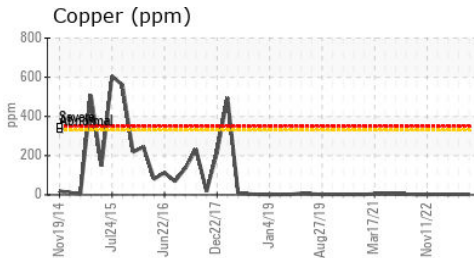
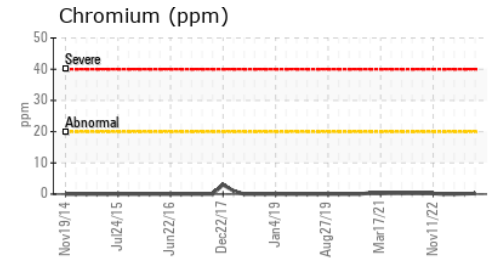
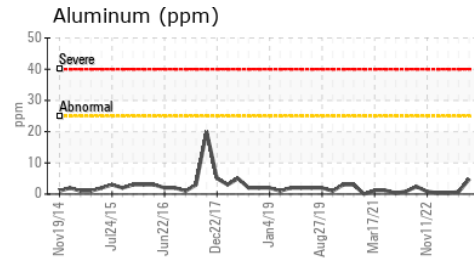
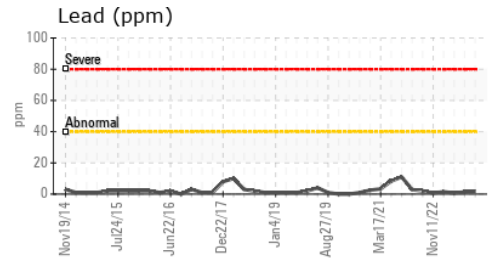
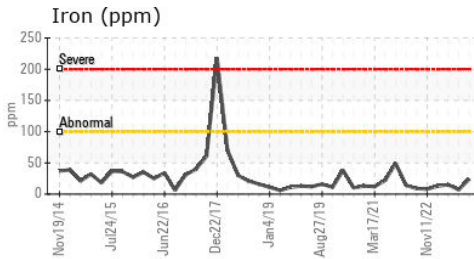
# OIL ANALYSIS REPORT



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	<b>13.8</b>	13.8	13.6

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0069716 **Received** : 06 Feb 2024  
**Lab Number** : **06081922** **Tested** : 07 Feb 2024  
**Unique Number** : 10869367 **Diagnosed** : 08 Feb 2024 - Sean Felton

**Kemp Quarries - River Valley - Backbone**  
 5600 S Hwy 253  
 Huntington, AR  
 US 72940

*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)*

backbone@rivervalleyquarries.com

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F: