

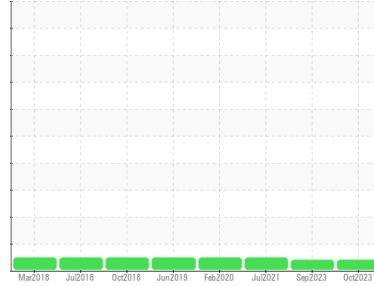
OIL ANALYSIS REPORT

Sample Rating Trend

VISCOSITY



Area
KEMP QUARRIES / RIVER VALLEY BACKBONE
Machine Id
WL035
Component
Rear Differential
Fluid
MOBIL MOBILTRANS HD 50 (--- GAL)



DIAGNOSIS

Recommendation

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. (Customer Sample Comment: Hour on machine 44859)

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The oil viscosity is lower than normal. Confirm oil type.

SAMPLE INFORMATION

| | method | limit/base | current | history1 | history2 |
|---------------|-------------|-------------|--------------------|-------------|-------------|
| Sample Number | Client Info | | PCA0084889 | PCA0084863 | PCA0038135 |
| Sample Date | Client Info | | 25 Oct 2023 | 26 Sep 2023 | 14 Jul 2021 |
| Machine Age | hrs | Client Info | 44859 | 44539 | 43079 |
| Oil Age | hrs | Client Info | 1200 | 900 | 0 |
| Oil Changed | Client Info | | Changed | Not Changd | Not Changd |
| Sample Status | | | ATTENTION | ATTENTION | NORMAL |

WEAR METALS

| | method | limit/base | current | history1 | history2 |
|----------|--------|------------------|--------------|----------|----------|
| Iron | ppm | ASTM D5185m >500 | 36 | 30 | 46 |
| Chromium | ppm | ASTM D5185m >3 | 0 | <1 | <1 |
| Nickel | ppm | ASTM D5185m >3 | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185m >2 | 0 | <1 | <1 |
| Silver | ppm | ASTM D5185m >2 | 0 | 0 | <1 |
| Aluminum | ppm | ASTM D5185m >30 | <1 | 1 | <1 |
| Lead | ppm | ASTM D5185m >13 | 0 | <1 | <1 |
| Copper | ppm | ASTM D5185m >103 | 3 | 3 | 4 |
| Tin | ppm | ASTM D5185m >5 | 0 | <1 | <1 |
| Antimony | ppm | ASTM D5185m >5 | --- | --- | 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 | 2 | 15 |
| Barium | ppm | ASTM D5185m | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 5 | 2 | 3 |
| Manganese | ppm | ASTM D5185m | <1 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | 76 | 44 | 46 |
| Calcium | ppm | ASTM D5185m | 899 | 1087 | 2957 |
| Phosphorus | ppm | ASTM D5185m | 538 | 637 | 1005 |
| Zinc | ppm | ASTM D5185m | 710 | 796 | 1158 |
| Sulfur | ppm | ASTM D5185m | 4004 | 5232 | 11362 |

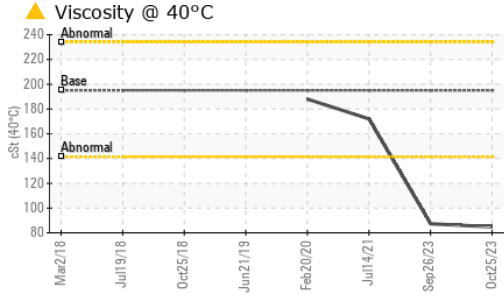
CONTAMINANTS

| | method | limit/base | current | history1 | history2 |
|-----------|--------|------------------|----------|----------|----------|
| Silicon | ppm | ASTM D5185m >100 | 5 | 6 | 7 |
| Sodium | ppm | ASTM D5185m | 1 | 0 | <1 |
| Potassium | ppm | ASTM D5185m >20 | 0 | <1 | 1 |

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 >.2 | NEG | NEG | NEG |
| Free Water | scalar | *Visual | NEG | NEG | NEG |

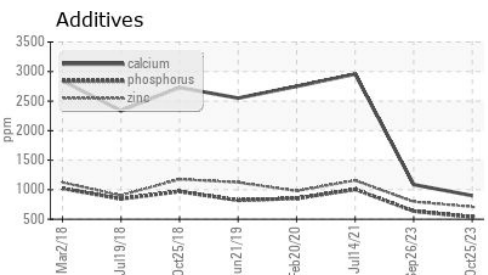
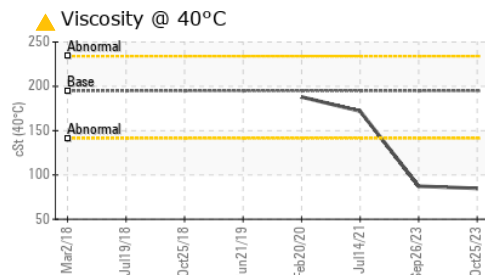
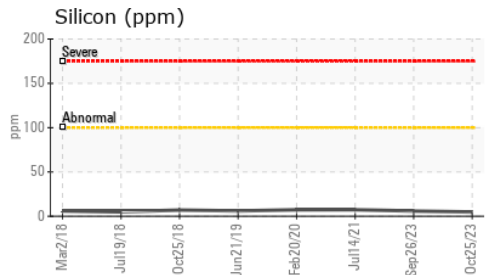
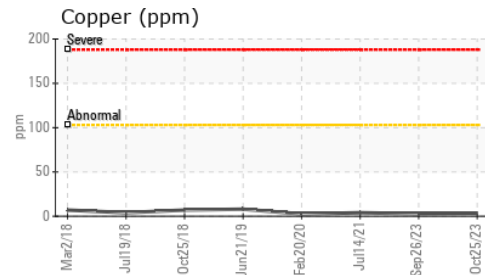
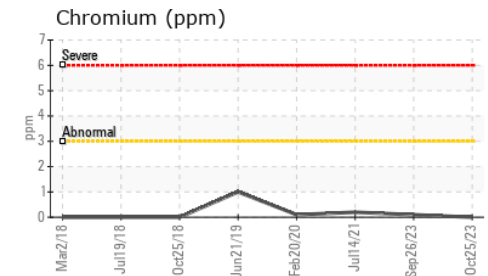
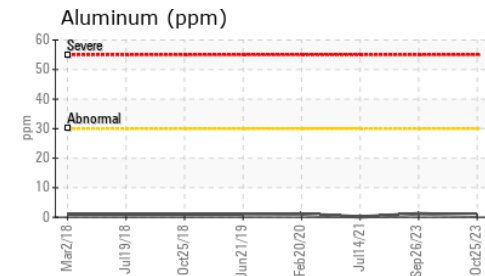
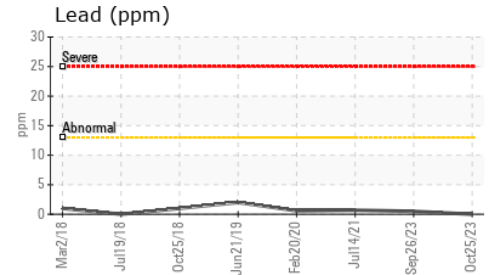
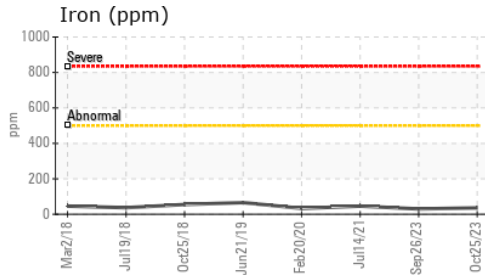
OIL ANALYSIS REPORT



| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|------------------|-----|-----------|------------|---------|----------|----------|
| Visc @ 40°C | cSt | ASTM D445 | 195 | ▲ 84.8 | ▲ 87.3 | 172 |

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

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : PCA0084889 Received : 06 Nov 2023
 Lab Number : 06000062 Diagnosed : 08 Nov 2023
 Unique Number : 10728422 Diagnostician : Sean Felton
 Test Package : MOB 1

Kemp Quarries - River Valley - Backbone
 5600 S Hwy 253
 Huntington, AR
 US 72940
 Contact:
 backbone@rivervalleyquarries.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: