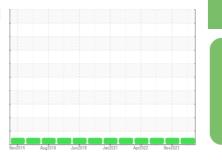


# **OIL ANALYSIS REPORT**

Area KANSAS/44/EG - OTHER SERVICE 63.03 [KANSAS^44^EG - OTHER SERVICE] Component Front Right Final Drive Fluid



Sample Rating Trend



NORMAL

Fluid MOBIL 50W (--- GAL)

### 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

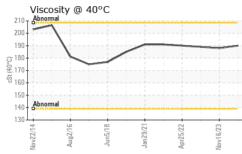
The condition of the oil is acceptable for the time in service.

| SAMPLE INFORM   | IATION   | method   | limit/base   | current  | history1   | history2  |
|---|--|--|--|--|--|---|
| Sample Number   |  | Client Info  |  | WC0914573  | WC0862705  | WC0697597   |
| Sample Date   |  | Client Info  |  | 29 Apr 2024  | 16 Nov 2023  | 24 May 2022   |
| Machine Age   | hrs  | Client Info  |  | 15550  | 13432  | 12681   |
| Oil Age   | hrs  | Client Info  |  | 1000   | 789  | 38  |
| Oil Changed   |  | Client Info  |  | Changed  | Not Changd   | Not Changd  |
| Sample Status   |  |  |  | NORMAL   | NORMAL   | NORMAL  |
| CONTAMINATION   | ٨  | method   | limit/base   | current  | history1   | history2  |
| Water   |  | WC Method  | >0.2   | NEG  | NEG  | NEG   |
| WEAR METALS   |  | method   | limit/base   | current  | history1   | history2  |
| Iron  | ppm  | ASTM D5185m  | >800   | 18   | 13   | 16  |
| Chromium  | ppm  | ASTM D5185m  | >10  | 0  | 0  | <1  |
| Nickel  | ppm  | ASTM D5185m  | >5   | 0  | 0  | 0   |
| Titanium  | ppm  | ASTM D5185m  | >15  | 0  | 0  | <1  |
| Silver  | ppm  | ASTM D5185m  | >2   | 0  | 0  | <1  |
| Aluminum  | ppm  | ASTM D5185m  | >75  | 1  | 1  | 2   |
| Lead  | ppm  | ASTM D5185m  | >10  | <1   | <1   | 0   |
| Copper  | ppm  | ASTM D5185m  | >75  | 5  | 6  | 6   |
| Tin   | ppm  | ASTM D5185m  | >8   | <1   | <1   | <1  |
| Vanadium  | ppm  | ASTM D5185m  |  | 0  | <1   | 0   |
| Cadmium   | ppm  | ASTM D5185m  |  | 0  | 0  | 0   |
| ADDITIVES   |  | method   | limit/base   | current  | history1   | history2  |
| Boron   | ppm  | ASTM D5185m  |  | 7  | 6  | 14  |
| Barium  | ppm  | ASTM D5185m  |  | 0  | 0  | 0   |
| Molybdenum  | ppm  | ASTM D5185m  |  | 3  | 4  | 4   |
|   |  | AOTH DEADE   |  | <1   | 0  | <1  |
| Manganese   | ppm  | ASTM D5185m  |  | <b>N</b>   | 0  | < 1   |
| Manganese<br>Magnesium  | ppm<br>ppm   | ASTM D5185m<br>ASTM D5185m   |  | 26   | 23   | 25  |
|   |  |  |  |  |  |   |
| Magnesium   | ppm  | ASTM D5185m  |  | 26   | 23   | 25  |
| Magnesium<br>Calcium  | ppm<br>ppm   | ASTM D5185m<br>ASTM D5185m   |  | 26<br>3190   | 23<br>3106   | 25<br>3088  |
| Magnesium<br>Calcium<br>Phosphorus  | ppm<br>ppm<br>ppm  | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m  |  | 26<br>3190<br>1088   | 23<br>3106<br>1090   | 25<br>3088<br>1001  |
| Magnesium<br>Calcium<br>Phosphorus<br>Zinc  | ppm<br>ppm<br>ppm<br>ppm<br>ppm  | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m   | limit/base   | 26<br>3190<br>1088<br>1301   | 23<br>3106<br>1090<br>1250   | 25<br>3088<br>1001<br>1172  |
| Magnesium<br>Calcium<br>Phosphorus<br>Zinc<br>Sulfur  | ppm<br>ppm<br>ppm<br>ppm<br>ppm  | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m  | limit/base   | 26<br>3190<br>1088<br>1301<br>14476  | 23<br>3106<br>1090<br>1250<br>11932  | 25<br>3088<br>1001<br>1172<br>11990   |
| Magnesium<br>Calcium<br>Phosphorus<br>Zinc<br>Sulfur<br>CONTAMINANTS  | ppm<br>ppm<br>ppm<br>ppm   | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>method  |  | 26<br>3190<br>1088<br>1301<br>14476<br>current   | 23<br>3106<br>1090<br>1250<br>11932<br>history1  | 25<br>3088<br>1001<br>1172<br>11990<br>history2   |
| Magnesium<br>Calcium<br>Phosphorus<br>Zinc<br>Sulfur<br>CONTAMINANTS<br>Silicon   | ppm<br>ppm<br>ppm<br>ppm<br>ppm  | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m   | >400   | 26<br>3190<br>1088<br>1301<br>14476<br>current<br>7  | 23<br>3106<br>1090<br>1250<br>11932<br>history1<br>6   | 25<br>3088<br>1001<br>1172<br>11990<br>history2<br>6  |
| Magnesium<br>Calcium<br>Phosphorus<br>Zinc<br>Sulfur<br>CONTAMINANTS<br>Silicon<br>Sodium   | ppm<br>ppm<br>ppm<br>ppm<br>ppm  | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m  | >400   | 26<br>3190<br>1088<br>1301<br>14476<br>current<br>7<br>2   | 23<br>3106<br>1090<br>1250<br>11932<br>history1<br>6<br>2  | 25<br>3088<br>1001<br>1172<br>11990<br>history2<br>6<br>3   |
| Magnesium<br>Calcium<br>Phosphorus<br>Zinc<br>Sulfur<br>CONTAMINANTS<br>Silicon<br>Sodium<br>Potassium  | ppm<br>ppm<br>ppm<br>ppm<br>ppm  | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m   | >400<br>>20  | 26<br>3190<br>1088<br>1301<br>14476<br>current<br>7<br>2<br>0  | 23<br>3106<br>1090<br>1250<br>11932<br>history1<br>6<br>2<br>0   | 25<br>3088<br>1001<br>1172<br>11990<br>history2<br>6<br>3<br>0  |
| Magnesium<br>Calcium<br>Phosphorus<br>Zinc<br>Sulfur<br>CONTAMINANTS<br>Silicon<br>Sodium<br>Potassium<br>VISUAL  | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm  | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m   | >400<br>>20<br>limit/base  | 26<br>3190<br>1088<br>1301<br>14476<br>current<br>7<br>2<br>0<br>0<br>current  | 23<br>3106<br>1090<br>1250<br>11932<br>history1<br>6<br>2<br>0<br>history1   | 25<br>3088<br>1001<br>1172<br>11990<br>history2<br>6<br>3<br>0<br>0<br>history2   |
| Magnesium<br>Calcium<br>Phosphorus<br>Zinc<br>Sulfur<br>CONTAMINANTS<br>Silicon<br>Sodium<br>Potassium<br>VISUAL<br>White Metal   | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>scalar   | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>XSTM D5185m  | >400<br>>20<br>limit/base<br>NONE  | 26<br>3190<br>1088<br>1301<br>14476<br><i>current</i><br>7<br>2<br>0<br><i>current</i><br>NONE   | 23<br>3106<br>1090<br>1250<br>11932<br>history1<br>6<br>2<br>0<br>history1<br>NONE   | 25<br>3088<br>1001<br>1172<br>11990<br>history2<br>6<br>3<br>0<br>history2<br>MODER   |
| Magnesium<br>Calcium<br>Phosphorus<br>Zinc<br>Sulfur<br>CONTAMINANTS<br>Silicon<br>Sodium<br>Potassium<br>VISUAL<br>White Metal<br>Yellow Metal   | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>scalar<br>scalar   | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>*Visual   | >400<br>>20<br>limit/base<br>NONE<br>NONE  | 26<br>3190<br>1088<br>1301<br>14476<br>current<br>7<br>2<br>0<br>current<br>NONE<br>NONE   | 23<br>3106<br>1090<br>1250<br>11932<br>history1<br>6<br>2<br>0<br>history1<br>NONE<br>NONE   | 25<br>3088<br>1001<br>1172<br>11990<br>history2<br>6<br>3<br>0<br>history2<br>MODER<br>NONE   |
| Magnesium<br>Calcium<br>Phosphorus<br>Zinc<br>Sulfur<br>CONTAMINANTS<br>Silicon<br>Sodium<br>Potassium<br>VISUAL<br>VISUAL<br>Vhite Metal<br>Yellow Metal<br>Precipitate  | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>scalar<br>scalar<br>scalar   | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>*Visual<br>*Visual   | >400<br>>20<br>limit/base<br>NONE<br>NONE<br>NONE  | 26<br>3190<br>1088<br>1301<br>14476<br><i>current</i><br>7<br>2<br>0<br><i>current</i><br>NONE<br>NONE<br>NONE<br>NONE   | 23<br>3106<br>1090<br>1250<br>11932<br>history1<br>6<br>2<br>0<br>history1<br>NONE<br>NONE<br>NONE<br>NONE                                     | 25<br>3088<br>1001<br>1172<br>11990<br>history2<br>6<br>3<br>0<br>history2<br>MODER<br>NONE<br>NONE   |
| Magnesium<br>Calcium<br>Phosphorus<br>Zinc<br>Sulfur<br>CONTAMINANTS<br>Silicon<br>Sodium<br>Potassium<br>VISUAL<br>VISUAL<br>Vhite Metal<br>Yellow Metal<br>Precipitate<br>Silt  | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>scalar<br>scalar<br>scalar<br>scalar                        | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>*Visual<br>*Visual<br>*Visual<br>*Visual   | >400<br>>20<br>limit/base<br>NONE<br>NONE<br>NONE<br>NONE  | 26<br>3190<br>1088<br>1301<br>14476<br>current<br>7<br>2<br>0<br>current<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE   | 23<br>3106<br>1090<br>1250<br>11932<br>history1<br>6<br>2<br>0<br>history1<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE                             | 25<br>3088<br>1001<br>1172<br>11990<br>history2<br>6<br>3<br>0<br>history2<br>MODER<br>NONE<br>NONE<br>NONE                                       |
| Magnesium<br>Calcium<br>Phosphorus<br>Zinc<br>Sulfur<br>CONTAMINANTS<br>Silicon<br>Sodium<br>Potassium<br>VISUAL<br>VISUAL<br>Vhite Metal<br>Yellow Metal<br>Precipitate<br>Silt<br>Debris  | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar              | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual   | >400<br>>20<br>limit/base<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE                                  | 26<br>3190<br>1088<br>1301<br>14476<br>current<br>7<br>2<br>0<br>2<br>0<br>0<br>current<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE                                      | 23<br>3106<br>1090<br>1250<br>11932<br>history1<br>6<br>2<br>0<br><u>history1</u><br>NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE              | 25<br>3088<br>1001<br>1172<br>11990<br>history2<br>6<br>3<br>0<br>history2<br>MODER<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE                       |
| Magnesium<br>Calcium<br>Phosphorus<br>Zinc<br>Sulfur<br>CONTAMINANTS<br>Silicon<br>Sodium<br>Potassium<br>VISUAL<br>White Metal<br>Yellow Metal<br>Yellow Metal<br>Precipitate<br>Silt<br>Debris<br>Sand/Dirt                       | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar              | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual   | >400<br>>20<br>Iimit/base<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE                                  | 26<br>3190<br>1088<br>1301<br>14476<br>current<br>7<br>2<br>0<br>current<br>0<br>current<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NON                      | 23<br>3106<br>1090<br>1250<br>11932<br>history1<br>6<br>2<br>0<br><u>history1</u><br>NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE      | 25<br>3088<br>1001<br>1172<br>11990<br>history2<br>6<br>3<br>0<br>history2<br>MODER<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE               |
| Magnesium<br>Calcium<br>Phosphorus<br>Zinc<br>Sulfur<br>CONTAMINANTS<br>Silicon<br>Sodium<br>Potassium<br>VISUAL<br>White Metal<br>Yellow Metal<br>Yellow Metal<br>Precipitate<br>Silt<br>Debris<br>Sand/Dirt<br>Appearance         | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar           | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual                       | >400<br>>20<br>Iimit/base<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NON           | 26<br>3190<br>1088<br>1301<br>14476<br><b>current</b><br>7<br>2<br>0<br><b>current</b><br>0<br><b>current</b><br>NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NON | 23<br>3106<br>1090<br>1250<br>11932<br>history1<br>6<br>2<br>0<br>history1<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NON      | 25<br>3088<br>1001<br>1172<br>11990<br>history2<br>6<br>3<br>0<br>history2<br>MODER<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NO |
| Magnesium<br>Calcium<br>Phosphorus<br>Zinc<br>Sulfur<br>CONTAMINANTS<br>Silicon<br>Sodium<br>Potassium<br>VISUAL<br>White Metal<br>Yellow Metal<br>Yellow Metal<br>Precipitate<br>Silt<br>Debris<br>Sand/Dirt<br>Appearance<br>Odor | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual | >400<br>>20<br>Imit/base<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NORML<br>NORML | 26<br>3190<br>1088<br>1301<br>14476<br><b>current</b><br>7<br>2<br>0<br><b>current</b><br>NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NON                        | 23<br>3106<br>1090<br>1250<br>11932<br>history1<br>6<br>2<br>2<br>0<br>history1<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NON | 25<br>3088<br>1001<br>1172<br>11990<br>history2<br>6<br>3<br>0<br>history2<br>MODER<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NO |

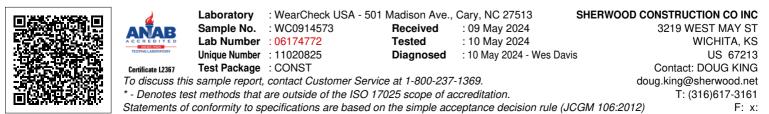
Report Id: SHEWIC [WUSCAR] 06174772 (Generated: 05/11/2024 22:28:59) Rev: 1



## **OIL ANALYSIS REPORT**



| cSt      | ASTM D445  |                          | 100      |                                     |                                      |
|----------|--|--------------------------|----------|-------------------------------------|--------------------------------------|
| S        |  |                          | 190      | 188                                 | 189                                  |
|          | method   | limit/base               | current  | history1                            | history                              |
|          |  |                          | no image | no image                            | no image                             |
|          |  |                          | no image | no image                            | no image                             |
| -        |  | L                        |          |                                     |                                      |
| IZ/6Zuef | Apri25/22 Apri25 |                          |          |                                     |                                      |
| Ja       | Ap<br>No   |                          |          |                                     |                                      |
| /        |  |                          |          |                                     |                                      |
| 129/21   | Apr25/22   |                          |          |                                     |                                      |
|          | Jan29/21-  | Jan29/21 -<br>Apr25/22 - | Jan29/21 | Jan 29/21<br>Apr 25/22<br>Nov 16/23 | Jan 29,21<br>Ap (25,722<br>Nov 16,23 |



Submitted By: BOBBY JONES Page 2 of 2